Panasonic

System Controller
Operating Instructions

Model No. WV-CU360CJ

ENGLISH

Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

ENGLISH VERSION

We declare under our sole responsibility that the product to which this declaration relates is in conformity with the standards or other normative documents following the provisions of Directives EEC/73/23 and EEC/89/336.

Wir erklären in alleiniger Verantwortung, daß das Produkt, auf das sich diese Erklärung bezieht, mit der folgenden Normen oder normativen Dokumenten übereinstimmt. Gemäß den Bestimmungen der Richtlinie 73/23/EEC und 89/336/EEC.

Nous déclarons sous note seule responsabilité que le produit auquel se réfère la présente déclaration est conforme aux normes ou autres documents normatifs conformément aux dispositions des directives CEE/73/23 et CEE/89/336.

Nosotros declaramos bajo nuestra única responsabilidad que el producto a que hace referencia esta declaración está conforme con las normas u otros documentos normativos siguiendo las estipulaciones de las directivas CEE/73/23 y CEE/89/336.

Noi dichiariamo sotto nostra esclusiva responsabilità che il prodotto a cui si riferisce la presente dichiarazione risulta conforme ai seguenti standard o altri documenti normativi conformi alle disposizioni delle direttive CEE/73/23 e CEE/89/336.

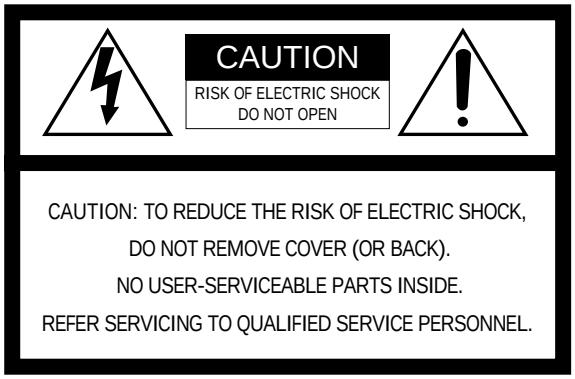
Wij verklaren als enige aansprakelijke, dat het product waarop deze verklaring betrekking heeft, voldoet aan de volgende normen of andere normatieve documenten, overeenkomstig de bepalingen van Richtlijnen 73/23/EEC en 89/336/EEC.

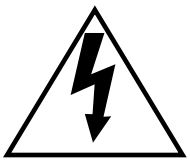
Vi erklærer os eneansvarlige for, at dette produkt, som denne deklaration omhandler, er i overensstemmelse med standarder eller andre normative dokumenter i følge bestemmelserne i direktivene 73/23/EEC og 89/336/EEC.

Vi deklarerar härmed värt fulla ansvar för att den produkt till vilken denna deklaration hänvisar är i överensstämmelse med standarddokument, eller andra normativa dokument som framställs i EEC-direktiv nr. 73/23 och 89/336.

Ilmoitamme yksinomaisella vastuullamme, että tuote, jota tämä ilmoitus koskee, noudattaa seuraavia standardeja tai muita ohjeellisia asiakirjoja, jotka noudattavat direktiivien 73/23/EEC ja 89/336/EE. säädöksiä.

Vi erklærer oss alene ansvarlige for at produktet som denne erklæringen gjelder for, er i overensstemmelse med følgende normer eller andre normgivende dokumenter som følger bestemmelsene i direktivene 73/23/EEC og 89/336/EEC.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION:

Before attempting to connect or operate this product, please read the label on the bottom.

The serial number of this product may be found on the bottom of the unit.
You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. WV-CU360CJ

Serial No. _____

WARNING:
To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

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ENGLISH

PREFACE

The System Controller WV-CU360CJ is designed for setup and operation of cameras and other system units installed in a surveillance system.
The controller is compatible with the Panasonic Security Data (PS•Data) protocol by default, but DIP switches are provided to select the conventional communication protocol used with the Video Multiplexer WJ-FS616C or Matrix Switcher WJ-SX850. Exchangeable templates are supplied to adapt the names printed on the buttons to the functions of the unit you wish to control.
You can operate a whole system from the controller, for example, by selecting cameras and monitors, watching monitor screens and indicators, and controlling pan/tilt, lens and other camera functions.

FEATURES

Main features
- Camera channel selection
- Monitor Selection
- Alarm (Display/Suspend/Recall/Reset)
- Camera and system unit setup

Camera controls
- Lens functions: Iris/Focus/Auto Focus/Zoom
- Housing: Defroster/Wiper/Auxiliary 1, 2
- Pan/Tilt: Slow Pan/Slow Tilt/Auto Pan/Auto Sort/Auto Sequence/Random Pan/Preset/Home/Camera Patrol
- Single-handed control of pan/tilt, zoom, and auto focus functions

In a PS•Data or a WJ-FS616 system
- Switching of Live pictures and Playback/Changing the Multiscreen Picture layout/Electronic Zoom/Sequence
- System Unit Selection

PRECAUTIONS

- **Refer all work related to the installation of this product to qualified service personnel or system installers.**

- **Do not attempt to disassemble the appliance.**
  To prevent electric shock, do not remove screws or covers.
  There are no user-serviceable parts inside. Contact qualified service personnel for maintenance.

- **Handle the appliance with care.**
  Do not strike or shake, as this may damage the appliance.

- **Do not expose the appliance to water or moisture, nor try to operate it in wet areas.**
  Take immediate action if the appliance becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and cause electric shock.

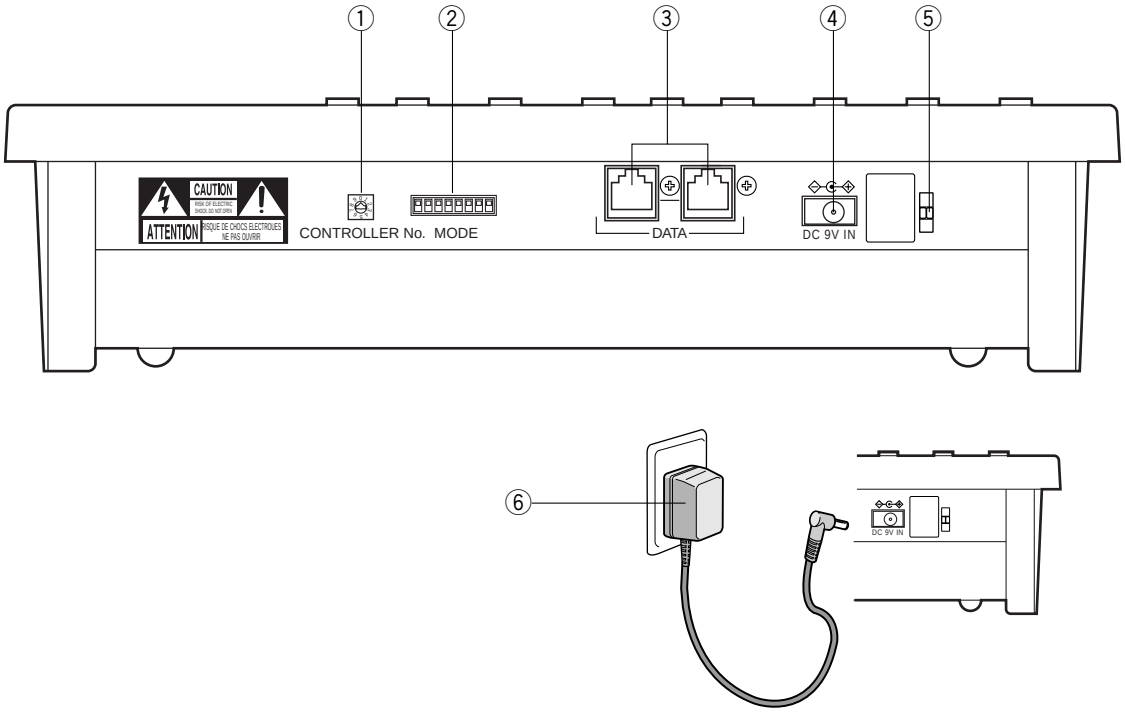
- **Do not use strong or abrasive detergents when cleaning the appliance body.**
  Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.

- **Do not operate the appliance beyond its specified temperature, humidity or power source ratings.**
  Do not use in the appliance in an extreme environment where high temperature or high humidity exists.
  Use the appliance at temperatures within –10˚C to +50˚C (14˚F to 122˚F) and a humidity below 90 %. The input power source for this appliance is 220 V to 240 V AC 50 Hz by use of the AC Adapter supplied.

- **Do not use any AC adapter other than the one supplied.**

MAJOR OPERATING CONTROLS & THEIR FUNCTIONS

■ Rear View & AC Adapter



① **Controller Number Switch (CONTROLLER No.)**
This switch is used to assign a controller number to the System Controller to identify it in a system comprising multiple System Controllers (See page 14). A system may comprise up to four controllers.

② **Mode Selection Switches (MODE)**
The DIP switches are used to set communication parameters for the System Controller.

③ **Data Ports (DATA)**
These ports are used to exchange control data with the connected system units via the supplied RS-485 cable.

④ **DC 9 V Input Jack (DC 9V IN)**
Jack for the DC plug of the supplied AC adapter.

⑤ **Clamp**
The clamp fastens the power cord to the AC adapter.

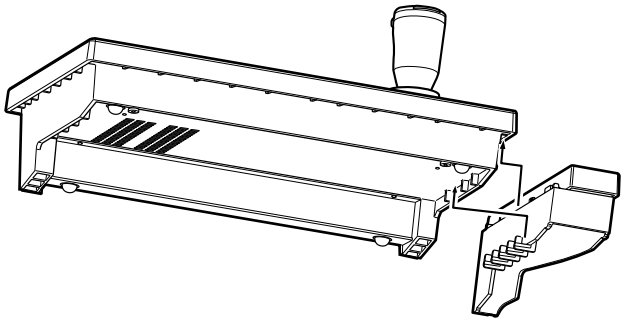
⑥ **AC Adapter**

Caution:
Use only the supplied AC adapter to feed DC 9 V to a System Controller.

Note: Disconnect the plug from the controller before setting the controller number switch or mode selection switch, and reconnect it when finished. The new settings will take effect when the power is turned on.

■ Palm Rest Mounting

Hook the projections of the palm rest on the system controller.

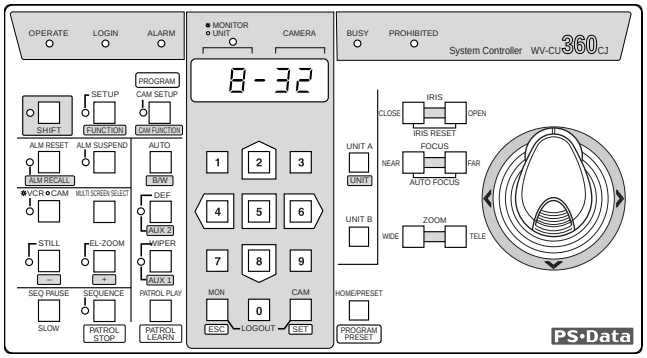


Note: There is no screw fixing. When using the palm rest, place the system controller on a level space.

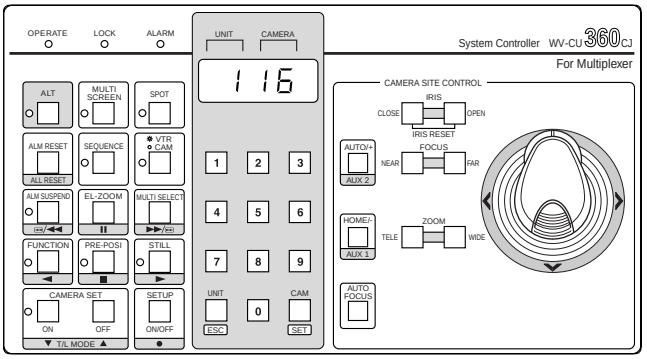
■ Template Mounting

The system controller is provided with four templates including one for PS•Data system that is placed (not taped yet) on the surface of the controller when shipped from the factory.

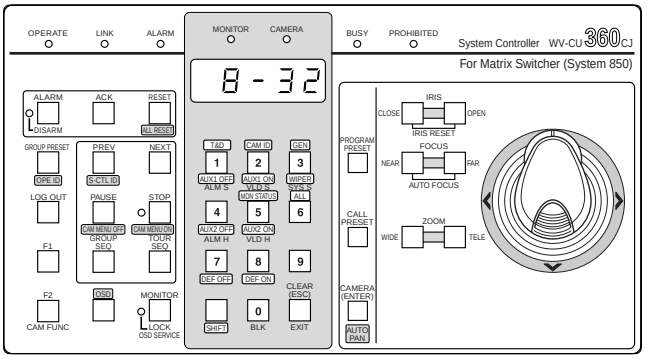
For PS•Data



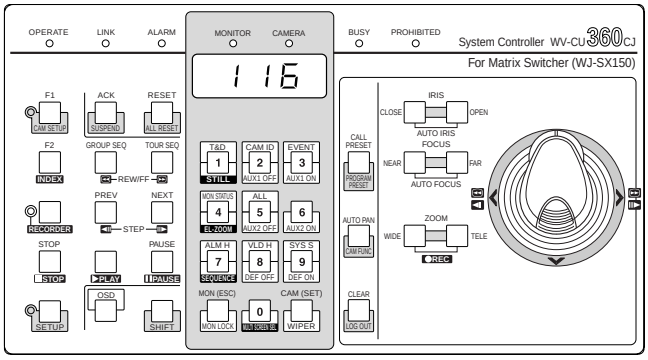
For FS616C



For SX850

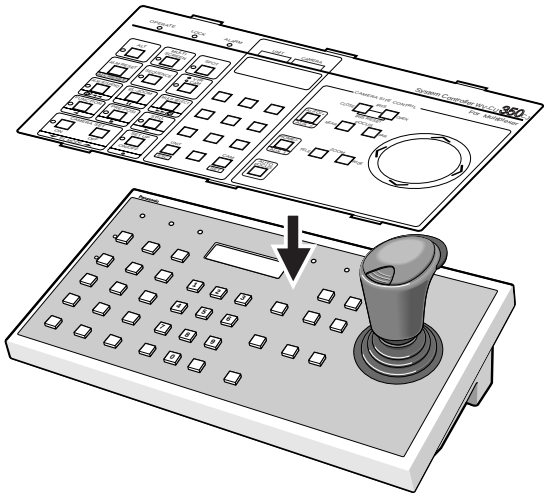


For SX150



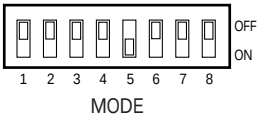
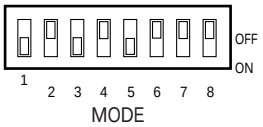
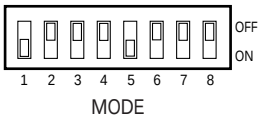
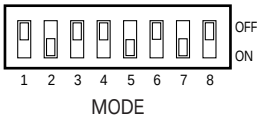
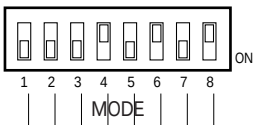
1. Select the correct template for your system.
   - Select the PS•Data template when your system includes any of the following:
     Video Multiplexer (WJ-FS309/316/409/416)
     Digital Disk Recorder (WJ-HD100/500A)
     Data Multiplex Unit (WJ-MP204C)
   - Select the template marked “For Multiplexer” if your system includes a WJ-FS616C Video Multiplexer.
   - Select the template marked “For Matrix Switcher (System SX850)” if your system includes a WJ-SX850 Matrix Switcher.
   - Select the template marked “For Matrix Switcher (WJ-SX150)” if your system includes a WJ-SX150 Matrix Switcher.

2. Peel off the tape, and fix the template in the guide slots on the front panel of the controller.



■ Rear Panel Switch Setting (Summary)

An 8-bit DIP switch and a rotary switch mounted on the rear of the controller specify the operation mode and parameters for communication. Switch settings depend on your system configuration. A summary of switch positions is shown below. For detailed information refer to the description of switch settings provided for each system.

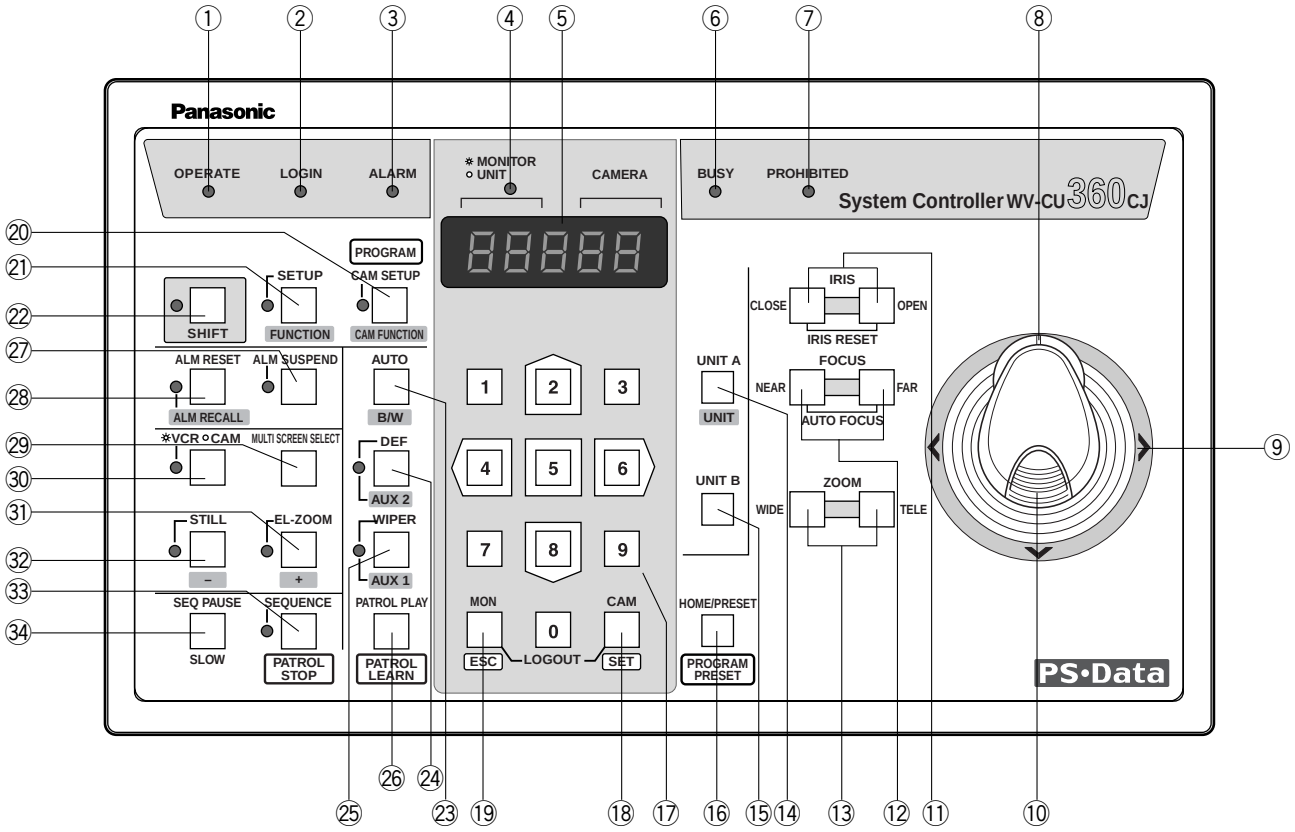
System	Controller No. SW	MODE DIP SW
PS•Data	See page 16 CONTROLLER No.	
WJ-FS616C	#1 CONTROLLER No.	
WJ-FS616	#1 CONTROLLER No.	
System 850 WJ-SX850	#1 CONTROLLER No.	
WJ-SX150	#1 CONTROLLER No.	

	Function
Bit 1	Operation mode
Bit 2	Operation mode
Bit 3	Operation mode
Bit 4	Reserved
Bit 5	Line termination
Bit 6	Administrator mode
Bit 7	Baud rate selection
Bit 8	Data transmission mode

For Panasonic Security Data (PS•Data) Systems

MAJOR OPERATING CONTROLS & THEIR FUNCTIONS

■ Front View (Template for PS•Data)



① **Operate indicator (OPERATE)**
Is lit while power is supplied to the System Controller.

② **Login indicator (LOGIN)**
Lights up when communication is established with PS•Data compatible system units.

③ **Alarm indicator (ALARM)**
Blinks when an alarm is activated.
Blinking changes to steady light when the alarm is automatically reset.
To turn the indicator off, press the Alarm Reset button.

④ **Monitor/Unit indicator (✲ MONITOR/ ○ UNIT)**
When this indicator lights up, the monitor number is displayed. When it goes off, the unit address is displayed.

⑤ **LED Display**
LED display allowing you to confirm the monitor or unit number and the number of the currently controlled camera.
It also displays numeric input, error status, etc.
The monitor or unit number is displayed when initial communication is established.

⑥ **Busy indicator (BUSY)**
Lights up when you attempt to control a system unit or camera that is already used by a higher priority operator, or when a higher priority operator selects the camera or system unit you are currently operating.
Operations from the System Controller are disabled until this indicator goes off.

⑦ **Prohibited indicator (PROHIBITED)**
Lights up when an attempt is made to access a function that is prohibited to the operator level.

⑧ **Zoom Wheel Controller**
This control is used for zooming cameras equipped with the specified lens. Moving the control to the right will zoom in the image. Moving the control to the left will zoom out the image.

⑨ **Joystick Controller**

Used to manually operate the pan/tilt head, or move the cursor in the setup menu on the active monitor screen. The joystick can also be moved in 8 directions.

Holding down the joystick in the desired position will keep the cursor moving continuously in the setup menu. (See page 17.)

- **∧:** Upward
- **∨:** Downward
- **<:** Left
- **>:** Right

⑩ **Top button**

Pressing this button will automatically set the lens focus of a specified camera.

⑪ **Iris buttons (IRIS, CLOSE/OPEN)**

Close or open the lens iris of cameras equipped with the specified lens.

When these buttons are pressed simultaneously, the lens iris is reset to the factory default setting.

⑫ **Focus buttons (FOCUS, NEAR/FAR)**

Adjust the lens focus of cameras equipped with the specified lens.

When these buttons are pressed simultaneously, the lens focus is set automatically if the specified camera is used.

⑬ **Zoom buttons (ZOOM, WIDE/TELE)**

Zoom the image in or out if the camera is equipped with the specified lens.

⑭ **Unit A/UNIT button (UNIT A/UNIT)**

Selects a specific system unit in a multiple unit system. To select a unit, press this button after entering the unit number with the numeric button. To confirm a unit number, press this button after pressing the SHIFT button. The selected unit address appears on the LED display.

The unit that is assigned to number 1 can be selected by pressing this button.

⑮ **Unit B button (UNIT B)**

Selects a specific system unit in a multiple unit system. To select a unit, press this button after entered the unit number with the numeric button. The selected unit address appears on the LED display.

Just pressing this button will select the system unit assigned the number 1.

⑯ **Home/Preset/Program Preset button (HOME/PRESET/PROGRAM PRESET)**

Returns a specific camera to its home position.

In combination with the numeric buttons, this button is also used to recall a preset position assigned to a specific camera.

Pressing it while holding down the Program/Camera Setup/Camera Function button will program the preset position.

⑰ **Numeric buttons (0-9)**

These buttons are used for numeric input, such as camera, monitor and unit numbers, and preset positions.

⑱ **Camera/Set button (CAM/SET)**

CAM: Used for camera selection. To select a camera, enter the desired camera number with the numeric buttons, and then press this button.

SET: Executes the currently highlighted setting in the setup menu.

Pressing this button together with the MON/ESC button for approximately 2 seconds will log out from the system.

⑲ **Monitor/Escape button (MON/ESC)**

MON: Used for monitor selection and confirmation. To select a monitor, enter the desired monitor number with the numeric buttons, and then press this button. The selected monitor number appears on the LED display.

To confirm a monitor number, simply press this button.

ESC: Used to escape from the currently highlighted selection and return to the previous menu of the setup menu.

Pressing this button together with the CAM/SET button for approximately 2 seconds will log out from the system.

⑳ **Program/Camera Setup/Camera Function button (PROGRAM/CAM SETUP/CAM FUNCTION)**

Programs camera patrol learning and preset position functions.

Pressing this button for 2 seconds or more will open the camera setup menu. Pressing it in combination with the numeric buttons after pressing the shift button will execute camera functions.

The LED next to the button is lit during the camera setup operation.

㉑ **Setup/Function button (SETUP/FUNCTION)**

Pressing this button for 2 seconds or more will open the setup menu of a system unit.

When the SHIFT indicator is lit, it provides access to the functions of the system unit. Enter a function number with the numeric keys, then press this button.

The LED next to the button is lit during the setup operation.

㉒ **Shift button (SHIFT)**

Shifts the button function between the normal and the shift mode shown in half-tone print under the button on the template. The LED next to the button is lit in the shift mode.

㉓ **Auto Panning/Black and White button (AUTO/B/W)**

Activates the auto panning function of cameras provided with this feature. Pressing this button in the shift mode will change the camera picture from colour to black and white for better viewing in a dark place.

AUTO PAN ON or combination camera function: Simply press this button, or press numeric button 1 followed by this button.

AUTO SORT ON: Press numeric button 2 followed by this button.

AUTO SEQ ON: Press numeric button 3 followed by this button.

RANDOM PAN ON: Press numeric button 4 followed by this button.

㉔ **Defroster/Auxiliary 2 button (DEF/AUX 2)**

Activates the housing defroster of cameras provided with this feature. Pressing this button in the shift mode will turn on the AUX 2 function controlling accessories connected to the cameras or the system.

The LED next to the button is lit while the defroster or AUX 2 function operates.

㉕ **Wiper/Auxiliary 1 button (WIPER/AUX 1)**

Activates the housing wiper of cameras provided with this feature. Pressing this button in the shift mode will turn on the AUX 1 function controlling accessories connected to the cameras or the system.

The LED next to the button is lit while the wiper or AUX 1 function operates.

㉖ **Patrol Play/Patrol Learn button (PATROL PLAY/ PATROL LEARN)**

Starts the camera patrol play. While holding down the Program/Camera setup/Camera Function button, pressing this button will start to program the camera patrol learning.

㉗ **Alarm Suspend button (ALM SUSPEND)**

Suspends or allows the alarm process.

The LED next to the button is lit while the alarm suspension mode operates.

㉘ **Alarm Reset/Alarm Recall button (ALM RESET/ALM RECALL)**

Resets system alarm when the alarm function is active.

Pressing this button in the SHIFT mode will recall the alarm logs (record of alarms activated in the past).

Select a monitor, and then press this button to display the alarm logs on the monitor screen. Pressing this button after pressing the shift button again will cancel the function.

The LED next to the button is lit while Alarm Recall mode is activated.

㉙ **Multiscreen Selection button (MULTI SCREEN SELECT)**

Selects the number of segments into which the multiscreen is split on the selected monitor connected to the MULTISCREEN OUT terminal of the Video Multiplexer.

㉚ **VTR/Camera Selection button (☼ VCR/ ○ CAM)**

Changes the display on the multiscreen monitor between the live picture of a camera and the playback picture of a recording device. The LED next to the button is lit while VCR is selected.

㉛ **Electronic Zoom/Increment button (EL-ZOOM/+)**

Zooms the camera picture or VCR playback picture displayed on the multiscreen monitor.

Pressing this button in the shift mode will move the camera sequence one step forward from the step previously paused while a system unit provided with SEQ PAUSE (e.g., a Video Multiplexer) is selected.

Pressing this button in the shift mode will select the picture of camera with the next higher number for display on the monitor while a system unit connected with cameras (e.g., a Data Multiplex Unit) is selected.

The LED next to the button is lit while Electronic Zoom mode is selected.

㉜ **Still/Decrement button (STILL/–)**

Freezes the camera picture or VCR playback picture on the multiscreen monitor.

Pressing this button in the shift mode will move the camera sequence one step backward from the step previously paused while a system unit (e.g., a Video Multiplexer) provided with SEQ PAUSE is selected.

Pressing this button in the shift mode will select the picture of the camera with the next lower number for display on the monitor while a system unit connected with cameras (e.g., a Data Multiplex Unit) is selected.

The LED next to the button is lit while a still picture is displayed.

㉝ **Sequence/Patrol Stop button (SEQUENCE/PATROL STOP)**

Runs or stops a preset sequence in which a series of camera pictures is displayed in succession on the monitor screen for the specified duration. Pressing it while holding down the Program/Camera Setup/Camera Function button will stop programming of camera patrol learning.

The LED next to the button is lit while a sequence runs.

㉞ **Sequence Pause/Slow button (SEQ PAUSE/SLOW)**

Pauses a sequence running on the selected monitor. In this mode, a series of camera pictures is displayed in pause on the monitor screen for the specified duration. Pressing this button while moving the joystick controller will decrease the pan/tilt speed.

INSTALLATIONS (PS•Data)

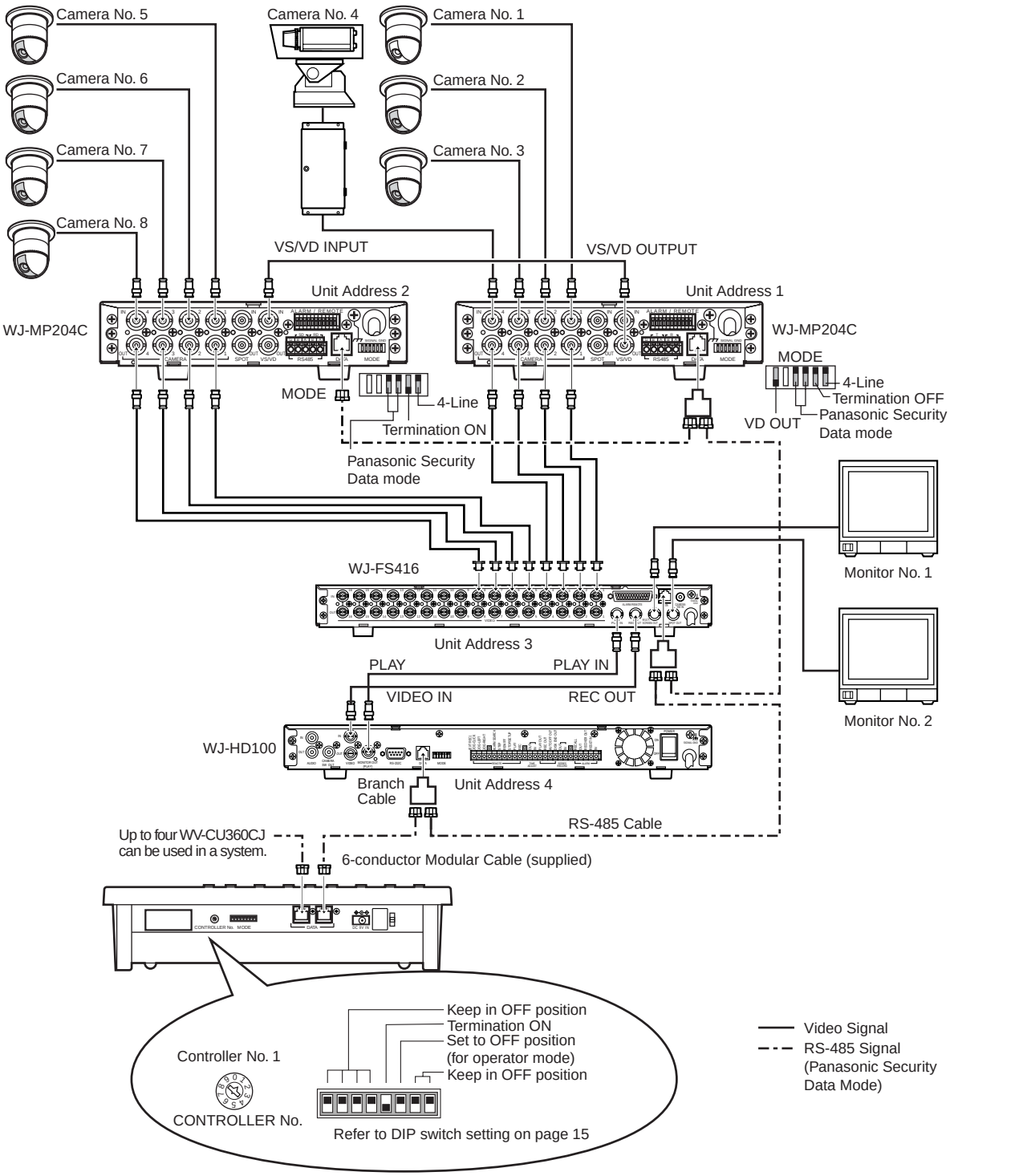
CAUTION

The installation should be made by qualified service personnel or system installers according to the following instructions.

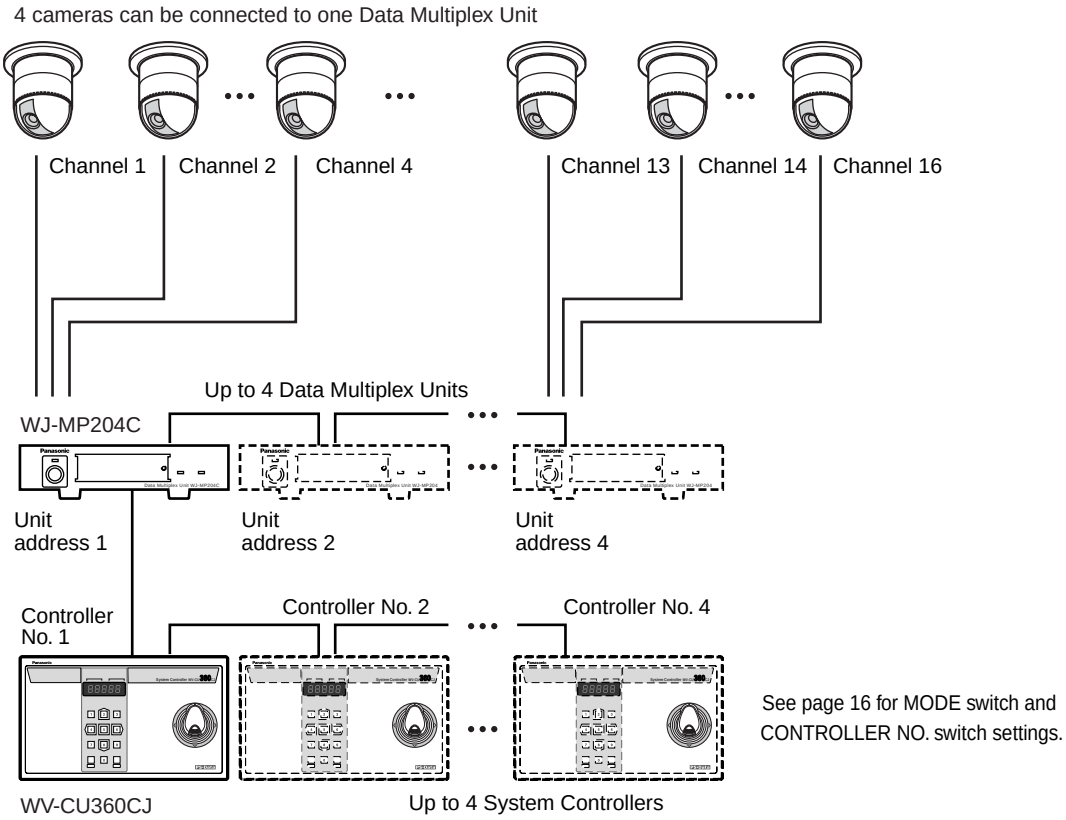
■ System Connections

● Connection Example

Example 1 shows 8 cameras connected to 2 Data Multiplex Units (WJ-MP204C), to a Video Multiplexer (e.g., WJ-FS416) and a Digital Disk Recorder (e.g., WJ-HD100). The WV-CU360CJ controls these system units through RS-485 communication while pictures are viewed on the monitors.



Example 2 shows 4 Data Multiplex Units connected with 16 combination cameras, and 4 System Controllers.

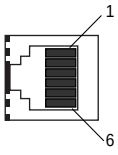


● DATA Port Connection (PS·Data)

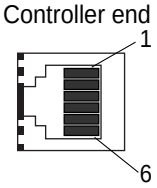
Data ports are connected with RS-485 cables among devices using the PS•Data protocol as follows.

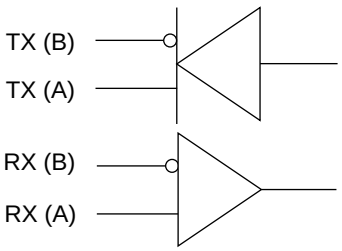
Note: When using cables other than those supplied, make sure to use shielded 4-wire twisted pair cable suitable for RS-485 communication.

- **Internal Diagram**

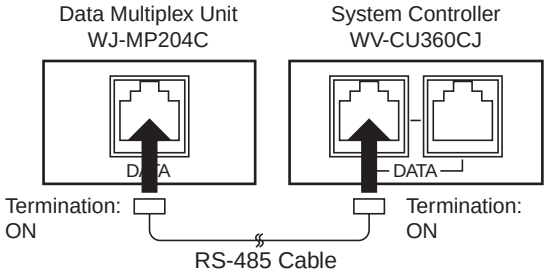


No.	Data Flow	Name	No.
1	–	GND	1
2	WJ-MP204C ← WV-CU360CJ	TX(B)	2
3	WJ-MP204C ← WV-CU360CJ	TX(A)	3
4	WJ-MP204C → WV-CU360CJ	RX(B)	4
5	WJ-MP204C → WV-CU360CJ	RX(A)	5
6	–	GND	6

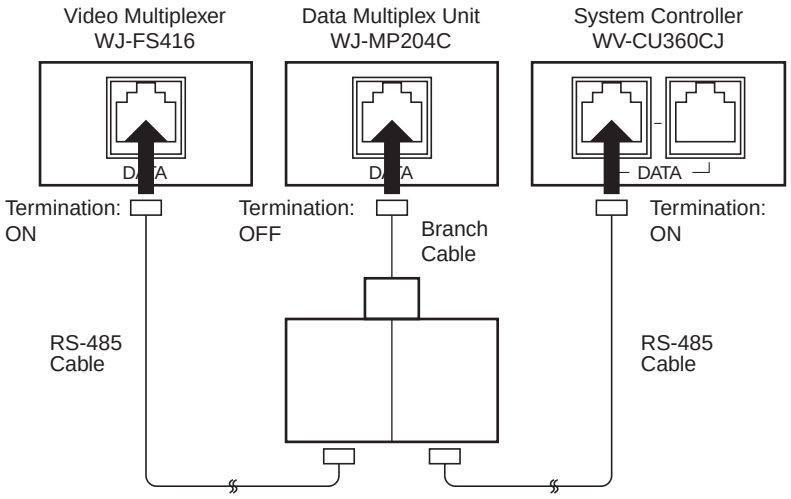




- **Basic Connection**

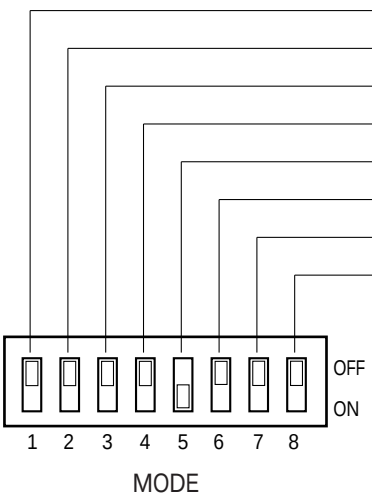


- **Daisy Chain Connection**



■ DIP Switch Setting (PS·Data)

An 8-bit DIP switch mounted on the rear panel specifies the communication mode, etc. The default position is marked with an asterisk *.



	Function	SW position	
		OFF	ON
Bit 1	Operation mode	Fixed to OFF*	Not used
Bit 2	Operation mode	Fixed to OFF*	Not used
Bit 3	Operation mode	Fixed to OFF*	Not used
Bit 4	Reserved	Fixed to OFF*	Not used
Bit 5	Line termination	Off	On*
Bit 6	Administrator mode	Off*	On
Bit 7	Baud rate selection	Fixed to OFF*	Not used
Bit 8	Data transmission mode	Fixed to OFF*	Not used

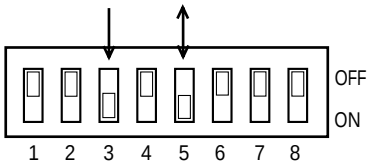
1. Remove the DC plug from the rear of the controller.
2. Set the switch referring to the table.
3. Connect the DC plug to the controller.

Notes:

- Bit 4 is reserved.
- Bit 5 opens or terminates the communication chain. The switch should be set to OFF when the controller is located in an intermediate position.
- Bit 6 specifies the operation mode, Operator or Administrator. The switch should be set to ON when setting up the controller. Remember to set this switch to the OFF position after completion of the setup operation.
- Bits 7 and 8 are used in the OFF position.

● MODE Switch Setting for System Example 2

The MODE switch needs to be set prior to operating a system connected as shown in Example 2.



Bit 3 should be set to OFF.
Bit 5 should be set to OFF when the controller is placed in an intermediate position, or set to ON when it is connected at the chain end.

■ Controller Number Setting (PS·Data)

A 10-position rotary switches provided on the rear for specifying the unit number of the WV-CU360CJ controller in a PS·Data system.

1. Remove the DC plug from the rear of the controller.
2. Use a screw driver to rotate the switch so that the arrow comes to the number you wish.

CONTROLLER No.

3. Connect the DC plug to the controller.

Controller No. Switch of WV-CU360CJ	Controller No.
0	Reserved
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	Reserved

Notes:

- Set the switch to #1 when a single controller is used in the system.
- Specify a unique number for each controller when connecting multiple controllers in the system. One controller within the multiple controller system must be assigned the number 1.
- Positions #0 and #9 are reserved and cannot be used.

CONTROLLER SETUP PROCEDURES (PS•Data)

To display the setup menus for the WV-CU360CJ System Controller on the LED display, set the MODE switch and power up the controller as described below.

■ Prior to Setup

Do the following before entering the setup mode.

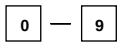
1. Confirm that all necessary connections and switch settings are complete.
2. With the power turned off, move bit #6 of the MODE switch on the rear to ON position.
3. Supply power to the controller.
4. Turn on the power of cameras and other system units.
5. The LCD displays [SEtUP]. The controller is ready to enter the setup mode.

When setup is completed, restore the switch to its original position.

1. With the power turned off, move bit #6 of the MODE switch on the rear to OFF position.
2. Supply power to the controller.

■ Buttons and Controls Used for Setup

The following buttons and joystick operations are used in the setup operation. There are three ways to select a parameter, but the following pages only describe the selection by use of the joystick. Instead of operating the joystick, you can enter the number enclosed in brackets with the numeric keys or press the plus and minus buttons.



Numeric buttons: To select a parameter
To enter a password or parameter

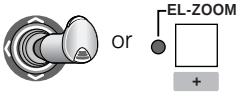
CAM/SET button: To confirm the selected menu, selected parameter or entered password
To enter a submenu

MON/ESC button: To return to the previous menu

Up: To select a setup menu

Down: To select a setup menu

Left: To decrease the parameter



Right: To increase the parameter

■ Setup Menus

There are 12 setup menus as shown below.

Menu Selection	Setup Menus: LED Display	Setup Menus: Reading	Setup Menus: Function		Parameter Selection (default*)
	SEtUP	Setup	Initial Display	CAM □ → SET	LED prompts you to enter a password
No ◇ OK	• • • • • blinking	Administrator Password Prompt	Authorization		Enter a 5-digit password, press (12345*) CAM □ SET
Move Joystick up and down to select	SPEEd	Speed	Baud Rate (bps)	Press twice CAM □ → SET	(1) 2 400 (2) 4 800 (3) 9 600* (4) 19 200
	PrtY	Parity	Parity Check		(1) None* (2) Even
	bJA It	Wait	Wait Time (ms)	← MON □ ESC	(1) Off* (2) 100 (3) 200 (4) 400 (5) 1 000
	CU-Gr	Controller Unit Group			Leave as it is
	SU-Gr	System Unit Group			Leave as it is
↑	UA-no	Unit A Number	Unit Assignment to Button A	CAM □ → SET	
	Ub-no	Unit B Number	Unit Assignment to Button B		
↓	USrP	User Password		← MON □ ESC	Enter a 5-digit number, press (12345*) CAM □ SET
	SUSrP	Super User Password	Administrator Password		Enter a 5-digit number, press (12345*) CAM □ SET
	USr-C	User Certification	User Authorization		(1) Off (2) On*
	CLEAn	Cleaning	Camera Cleaning		
	UtESt	Unit Test	Unit Connection Test		

● Administrator Authorization

1. Press the CAM/SET button while [SEtUP] is displayed. The [- - - - -] prompt appears.

2. Enter a password with the numeric buttons, then press the CAM/SET button.
   The default setting is [12345].

3. [SPEED] appears when the right password is entered. If password entry failed, the menu returns to [- - - - -].

Notes:

- We recommend that you register a new password different from "12345" in [SUSrP], and note down the registered password for future reference.
- Powering up the controller while holding down numeric buttons 2, 4 and 5 simultaneously will reset the password to "12345". Remember that this procedure also resets all other menu parameters to the default settings.

● Baud Rate

In this menu, the communication speed (bps: bits per second) is selected. The communication speed should match that of the other units connected in the communication chain.

1. Display [SPEED] and press the CAM/SET button twice.

2. Select a parameter entering a bracket-enclosed number, e.g., (3), moving the joystick right and left, or pressing the [+] and [–] button.
   The default setting is 19 200 bps.

   (1) 2 400: 2 400 bps
   (2) 4 800: 4 800 bps
   (3) 9 600: 9 600 bps
   (4) 19 200: 19 200 bps

   Note: Selecting a slower rate (e.g., 2 400 bps) will delay the response time (e.g., the time until an activated alarm is reset).

3. Press the CAM/SET button to validate the selection.

4. Press the ESC button to go back to the previous menu.

● Parity

In this menu, the parity check mode is selected.

1. Display [PrtY] and press the CAM/SET button twice.

2. Select a parameter with the joystick.
   The default setting is None.

   n: None
   E: Even parity

3. Press the CAM/SET button to validate the selection.

4. Press the ESC button to go back to the previous menu.

● Wait Time

In this menu a wait time is selected. The controller will retransmit data when there is no response during the specified wait time.

1. Display [LJAit] and press the CAM/SET button twice.

2. Select a parameter with the joystick.
   The default setting is Off.

   (1) OFF: Off, no retransmission of data
   (2) 100: 100 ms
   (3) 200: 200 ms
   (4) 400: 400 ms
   (5) 500: 500 ms
   (6) 1 000: 1 s

3. Press the CAM/SET button to validate the selection.

4. Press the ESC button to go back to the previous menu.

The following two menus should be maintained in the default condition.

● Controller Unit-Group Address

[CU-gr] appears on the Setup menu, but leave the default as it is.

● System Unit-Group Address

[SU-gr] appears on the Setup menu, but leave the default as it is.

● Unit A button Assignment

In this menu, a maximum of 9 system units is assigned to numeric buttons 1-9 regardless of unit address.
This is to avoid double-digit unit addresses which can occur in a large system with many units connected and could confuse operators.
A frequently used system unit can be easily selected in normal operation by pressing one numeric button and then the UNIT A button.

1. Display [UA-no] and press the CAM/SET button. The LED displays [A1-01] while "1" following A blinks.
   The first 2 digits from A1 to A9, "A numbers", stand for numeric buttons from 1 to 9 to be pressed prior to UNIT A button in normal operation. The next 2 digits are the unit address assigned in the following procedures.
   The default setting is shown below.

   A1-01
   A2-02
   A3-03
   A1-04
   A5-05
   A6-06
   A7-07
   A8-08
   A9-09

2. Select an "A number" entering a number from 1 to 9, then press the CAM/SET button. The LED displays "A number" A3 when numeric button 3 is entered for example.

   Available A numbers: 1-9

3. Press the CAM/SET button to validate the selection. The LED displays [A3-03] while the next two digits are blinking.

4. Enter a 2-digit unit address that you wish to assign to the "A number" (e.g., A3), then press the CAM/SET button. The LED displays [A3-99], for example, when you enter unit address 99.

   Available addresses: 01-99

5. Press the CAM/SET button to validate the selection. Repeat above the steps 2 to 5 as needed.

6. Press the ESC button to go back to the previous menu.

● Unit B button Assignment

The UNIT B button is set up in the same way as the UNIT A button for use in normal operation. Refer to the above description for Unit A button Assignment.

● User Password

In this menu, a 5-digit password for user authorization is registered.

1. Display [UsrP] and press the CAM/SET button. The LED displays the registered password.

2. Enter a 5-digit password with the numeric buttons.
   The default setting is [12345].

   Available password digits: 00000-99999

3. Press the CAM/SET button to validate the selection.

4. Press the ESC button to go back to the previous menu.

● Administrator Password

In this menu, a 5-digit password for administrator certification is registered.

1. Display [SUsrP] and press the CAM/SET button. The LED displays the registered password.

2. Enter a 5-digit password with the numeric buttons.
   The default setting is [12345].

   Available password digits: 00000-99999

3. Press the CAM/SET button to validate the selection.

4. Press the ESC button to go back to the previous menu.

● User Password Certification

In this menu, password certification in normal operation is enabled or disabled.

1. Display [USr-C] and press the CAM/SET button. The LED displays [UC-on] or [UC-oF].

2. Select On or Off with the joystick controller.
   The default setting is On.

   on: Password certification enabled.
   oF: Auto log-in

3. Press the CAM/SET button to confirm the selection.

4. Press the ESC button to go back to the previous menu.

● Camera Cleaning

This menu is for specifying the order in which combination cameras connected to the system are cleaned.
The camera cleaning function causes cleaning of the built-in slip rings that conduct electric signals while moving the pan/tilt head. All combination cameras connected to the system are cleaned in the order specified here. Picture viewing is disabled during the cleaning process.

1. Display [CLEAn] and press the CAM/SET button. The LED displays [no-01].

2. Use the numeric buttons to enter the number of the camera where cleaning is to start.
   The default setting is no-01.

   Available camera numbers: 01-199

3. Press the CAM/SET button to start cleaning.
   Two animated digits appear in the left part of the LCD while the digits at right display the number of the camera being cleaned.
   When cleaning is finished, the number of the last camera cleaned is displayed without animation.

4. Press the ESC button to go back to the previous menu.

● Unit Connection Test

This menu is for specifying the order in which data communication between system units is tested prior to operating the system as a whole.

1. Display [UtESt] and press the CAM/SET button. The LED displays [01-on] or [01-oF].

2. Enter the 2-digit unit number you wish to start with.

3. Press the CAM/SET button to start the test.
   The digits in the left part of the LCD display the unit number under test while 2 animated digits appear at right.
   To stop the test in progress, press the CAM/SET button.
   When testing is finished, the number of the last unit tested is displayed without animation.

4. Press the CAM/SET button. Enter a 2-digit number(e.g., 01), then press the CAM/SET button.
   You can now confirm the test results of a specific unit. When Off is displayed, check connections, switch settings, etc., of the system unit.

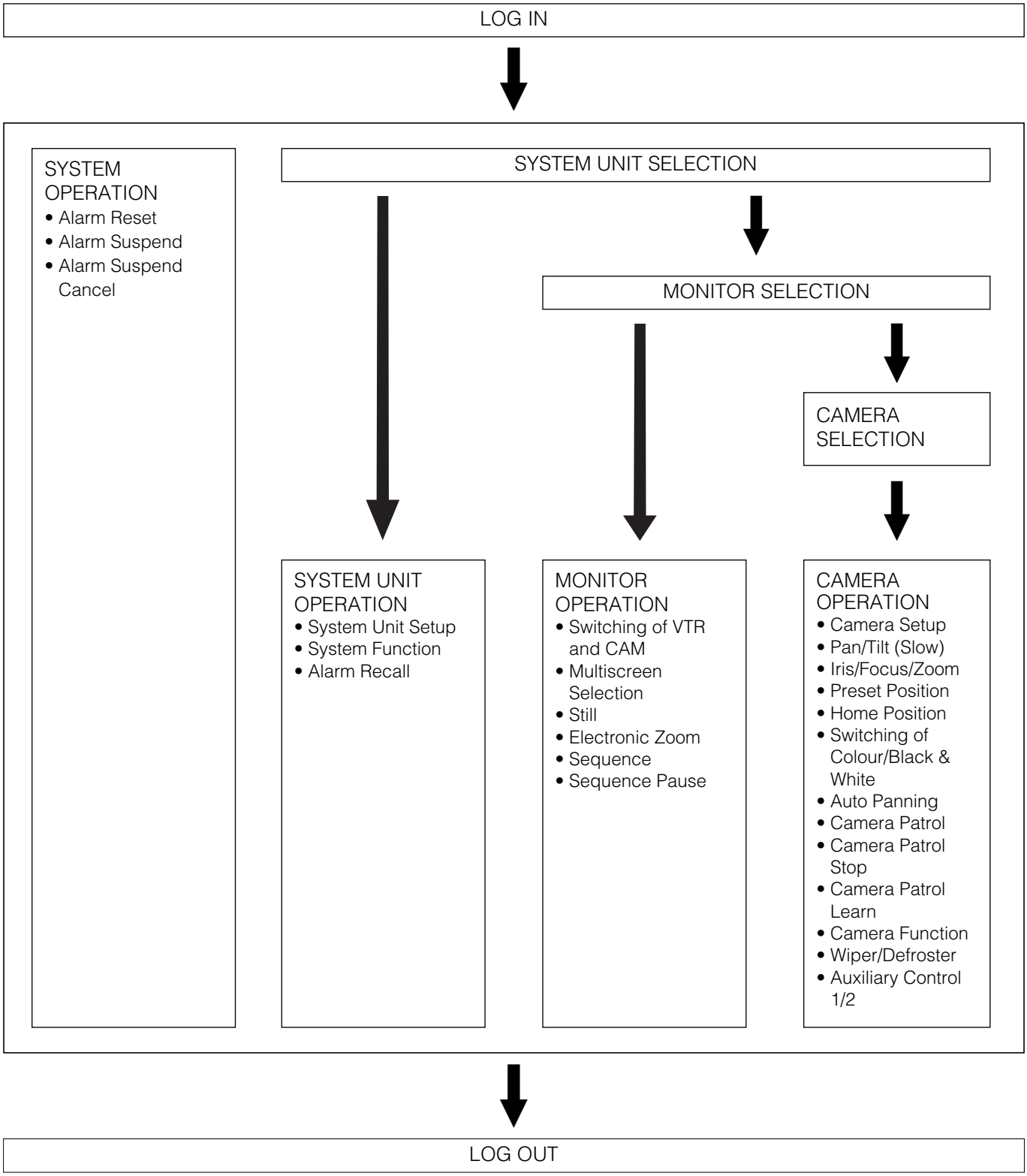
   01-on: On, unit 01 is connected.
   01-oF: Off, unit 01 is disconnected.

5. Press the ESC button to go back to the previous menu.

OPERATING PROCEDURES (PS•Data)

■ Basic Operating Flow

The operation starts with a log-in procedure. It proceeds to system unit selection, monitor selection and camera selection. Alarm operations for the system such as alarm reset, suspension may be implemented. The operation ends with a log-out procedure.



■ Log-in/Log-out

● Log-in

Right after powering up, the controller will be operable without password entry, provided user password certification is set to Off in the setup menu.
When set to On, you will be prompted to enter your registered password. The default password is “12345”, but you need to remember the password assigned to you by your system administrator.

1. Insert the DC plug into the DC 9 V IN jack and connect the AC adapter to an AC outlet.

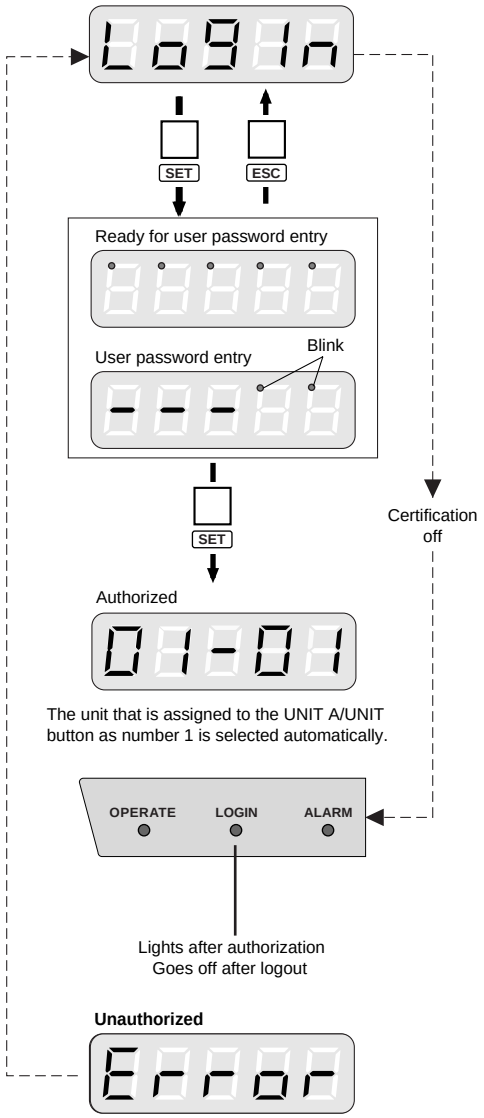
2. The controller number, software versions and [LogIn] appear in that order on the LED display.
   The LOGIN indicator lights up. The controller is now operable unless password certification is activated. If it is not activated, proceed as follows.

3. Press the CAM/SET button.

4. Enter a 5-digit user password with the numeric buttons.
   The initial factory setting is [12345].

5. Press the CAM/SET button.

6. If password entry for user authorization has been successful, the LOGIN indicator lights up.
   The unit assigned to the UNIT A/UNIT button as number 1 is selected automatically.
   If password entry has failed, [Error] appears on the display. The display returns to [LogIn].



● Log-out

1. Press the MON/ESC and CAM/SET buttons for about 2 seconds simultaneously.

2. [LogIn] appears on the display and the LOGIN indicator goes off.

3. Disconnect the DC plug from the controller, and remove the AC adapter from the AC outlet.

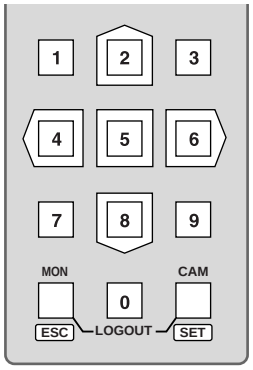
   Note: If the power is not turned off after logout, the alarm indicator and alarm suspend indicator will display the same status as in normal operation.

■ System Unit Selection

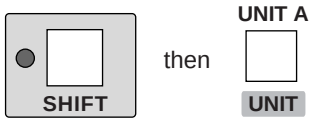
Connected system units can be selected either by their unit number (01-99) or by a single-digit number (1-9) assigned to the UNIT A or UNIT B button.

● Selecting with Unit Number

1. Enter a unit number (01-99) with the numeric buttons.



2. Press the **SHIFT** button to turn the shift indicator on, then press the **UNIT A/UNIT** button.



The selected unit number appears in the unit section of the LED display.
The selected camera number appears in the camera section of the LED display.

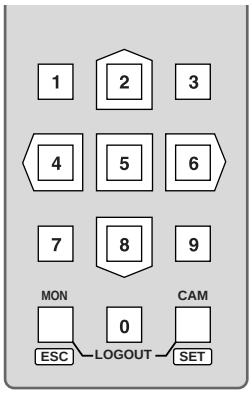
Notes:

- To confirm the selected unit number when the monitor number appears in the unit section of the LED display, take procedure 2 or press MON/ESC button .
- If no unit is connected, [Err] appears a few seconds after unit selection. In such a case, confirm the unit address and repeat the above procedure.
- If the unit address of a system unit is unknown, consult your system administrator.
- When multiple system units such as Data Multiplex Unit are connected to the System Controller and the UNIT A or UNIT B button is pressed, the camera number on the controller's LED display will not agree with the camera picture on the monitor.
  In this case, select the monitor and camera as described on the next page.

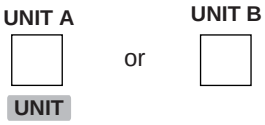
● Selecting with UNIT A/UNIT B Button

The unit numbers (01-99) of some frequently used units can be assigned to numeric buttons 1-9 in the setup. Units can be divided in two groups, one assigned to the UNIT A and the other to the UNIT B button. A frequently used system unit can be easily selected by pressing one numeric button and then the UNIT A or UNIT B button.

1. Enter a single digit number (1-9).
   Omit this step when you wish to select unit number “1”, as this unit is selected by default.



2. Press the **UNIT A** or **UNIT B** button while the SHIFT indicator is off.



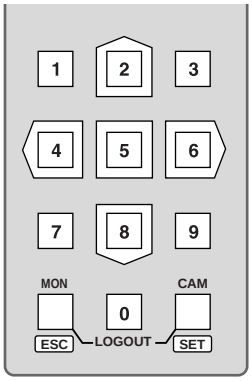
The selected unit address appears in the unit section of the LED display.
The selected camera number appears in the camera section of the LED display.

■ Monitor Selection

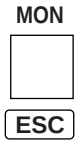
A monitor is selected when multiple monitors are connected to a system unit (e.g., a Video Multiplexer) to control such functions as multiscreen display and electronic zoom.

1. Select the system unit connected to the monitor you wish to control.

2. Enter a monitor number using the numeric buttons.



3. Press the **MON/ESC** button.



The selected monitor number appears in the monitor section of the LED display.
The selected camera number appears in the camera section of the LED display.
The monitor is now ready for control from the system controller.

Notes:

- To confirm the selected monitor number, simply take procedure 3 when the unit address appears in the monitor section of the LED display.
- Each time the MON/ESC button is pressed, the unit number and monitor number are displayed alternately on the LED.
- The setting is invalid if the unit in which the monitor number has been set is not programmed.
- In the above case, repeat the same procedure after confirming the monitor number. If you do not know the monitor number, consult the administrator.
- When [--] appears in the monitor section of the LED display, the selected system unit is not compatible with the monitor selection.
- For further information, refer to the Operating Instructions for the system unit concerned.

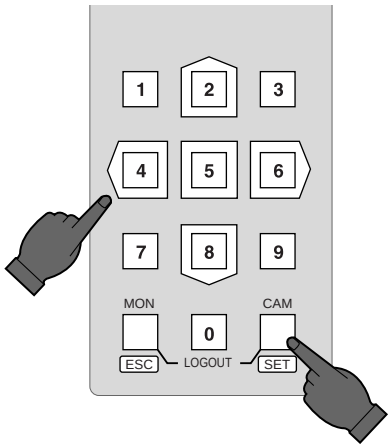
■ Camera Selection

One of the cameras connected to the system unit is selected.

1. Select a system unit connected to the camera whose picture you wish to view.

2. Enter a camera number using the numeric buttons.
The entered camera number appears on the LED display.

3. Press the **CAM/SET** button.



Note: [--] appears in the camera section of the LED display when an alarm is activated, when the multiscreen is displayed, or when a sequence mode is running.

The following functions are available after selecting a camera.

- Pan/tilt
- Focus
- Zoom
- Iris
- Defroster ON/OFF (camera housing)
- Wiper ON/OFF (camera housing)
- Preset Position (Combination Camera)
- Home position (Combination Camera)
- Switching between colour and B/W picture (Combination Camera)
- Auto pan (Combination Camera)
- Patrol Learn function (Combination Camera)
- Camera functions (Combination Camera)

The selected camera number can be incremented or decremented by one if the system unit is equipped with the camera switching feature.

1. Press the **SHIFT** button to turn the shift indicator on.

2. Press the **EL-ZOOM/+** button to increment or the **STILL/–** button to decrement the camera number.

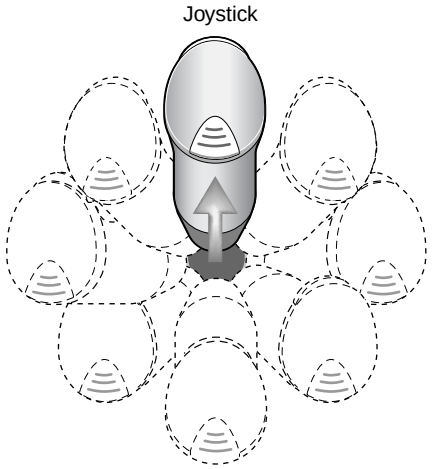
■ Camera Control

Cameras and their peripherals are controlled from the WV-CU360CJ as follows. Some of the descriptions may not be applicable if they refer to devices not equipped in your system.
The operating procedures on the following pages assume that you have selected a system unit and a monitor.

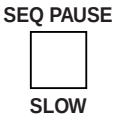
● Pan/Tilt Control

Proceed as follows to control a combination camera or an ordinary camera mounted on a pan/tilt head.

1. Move the pan/tilt head in the desired direction with the joystick controller.



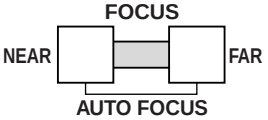
2. To slowly move the pan/tilt head, move the joystick while holding down the **SLOW** button.



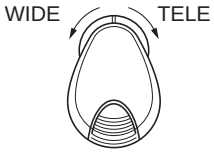
● Lens Control

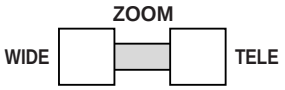
This allows you to control a motorized lens.

1. If you are using a camera with an auto focus feature, you can set the camera's lens focus automatically by pressing the top button on the joystick controller.
   You can also adjust the lens focus automatically by pressing the **FOCUS NEAR** and **FOCUS FAR** buttons simultaneously.
   If you are using a camera without an auto focus feature, adjust the focus manually by pressing the **FOCUS NEAR** or **FOCUS FAR** button while watching the monitor.



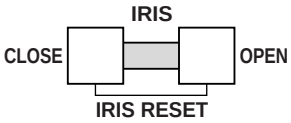
2. You can set a specified camera's lens zoom automatically by moving the zoom wheel controller on the joystick controller.
   Move the wheel controller to right to zoom in the image.
   Move the wheel controller to left to zoom out the image.
   You can also set the zoom by pressing the **ZOOM TELE/WIDE** button.
   Press the **ZOOM TELE** button to optically bring the object closer, or press the **ZOOM WIDE** button to optically widen the scene.





3. Press the **IRIS CLOSE** button to close the iris, or the **IRIS OPEN** button to open the iris.

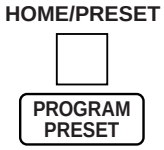
   If the **IRIS CLOSE** and **IRIS OPEN** buttons are pressed simultaneously, the iris is reset to the default.



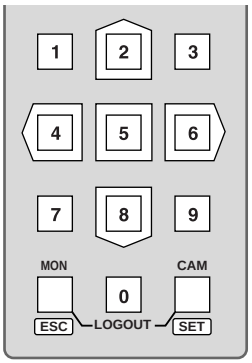
● Home/Preset Position

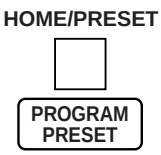
The camera moves to the preset position or back to the home position, and the picture of the camera in that position appears on the monitor.

1. Press the **HOME/PRESET** button to move the camera back to the home position.



2. Select a preset position number using the numeric buttons, then press the **HOME/PRESET** button to move the camera to the position.





● Combination Camera Shortcuts

The shortcuts listed below are available for controlling combination cameras. For more details, refer to the Operating Instructions included with the camera.

Function	Key
Selecting a PRESET position	From #1 to #64
#1	[1] + [CAM FUNC]
#10	[1] + [0] + [CAM FUNC]
#64	[6] + [4] + [CAM FUNC]
AUTO PAN	
ON	[6] + [5] + [CAM FUNC]
OFF	[6] + [6] + [CAM FUNC]
Speed Up	[6] + [7] + [CAM FUNC]
Speed Down	[6] + [8] + [CAM FUNC]
Setting Start Point	[6] + [9] + [CAM FUNC]
Setting End Point	[7] + [0] + [CAM FUNC]
Setting PAN Reverse	[7] + [4] + [CAM FUNC]
AUTO MODE	
MODE Off	[7] + [1] + [CAM FUNC]
SEQ On	[7] + [2] + [CAM FUNC]
SORT On	[7] + [3] + [CAM FUNC]
ENDLESS PAN	
On	[7] + [6] + [CAM FUNC]
Off	[7] + [7] + [CAM FUNC]
DIGITAL FLIP CS854A	
On	[7] + [8] + [CAM FUNC]
Off	[7] + [9] + [CAM FUNC]
PROP. PAN/TILT CS854A	
On	[8] + [0] + [CAM FUNC]
Off	[8] + [1] + [CAM FUNC]
SUPER-D2	
On	[8] + [4] + [CAM FUNC]
Off	[8] + [5] + [CAM FUNC]
AUTO FOCUS	
STOP AF On*	[8] + [6] + [CAM FUNC]
STOP AF Off*	[8] + [7] + [CAM FUNC]
AF On (Activate)	[8] + [8] + [CAM FUNC]
HOME POSITION	
Move to HOME	[8] + [9] + [CAM FUNC]
B/W or C/L CS854A	
B/W On*	[9] + [0] + [CAM FUNC]
B/W Off*	[9] + [1] + [CAM FUNC]
B/W AUTO*	[9] + [2] + [CAM FUNC]
CAMERA ID	
On	[9] + [3] + [CAM FUNC]
Off	[9] + [4] + [CAM FUNC]
AREA TITLE CS854A	
NESW On	[9] + [5] + [CAM FUNC]
USER On	[9] + [6] + [CAM FUNC]
TITLE Off	[9] + [7] + [CAM FUNC]

Function	Key
EL-ZOOM	
On	[9] + [8] + [CAM FUNC]
Off	[9] + [9] + [CAM FUNC]
RESTART	
Begin	[1] + [0] + [0] + [CAM FUNC]
Memorize PRESET	From #1 to #64**
Position #1	[1] + [0] + [1] + [CAM FUNC]
Position #10	[1] + [1] + [0] + [CAM FUNC]
Position #64	[1] + [6] + [4] + [CAM FUNC]
PATROL	
PLAY	[1] + [6] + [5] + [CAM FUNC]
STOP	[1] + [6] + [6] + [CAM FUNC]
LEARN(Start)	[1] + [6] + [7] + [CAM FUNC]
IRIS	
Open	[1] + [6] + [9] + [CAM FUNC]
Close	[1] + [7] + [0] + [CAM FUNC]
EL-SHUTTER	
On	[1] + [7] + [1] + [CAM FUNC]
Off	[1] + [7] + [2] + [CAM FUNC]
Speed Up	[1] + [7] + [3] + [CAM FUNC]
Speed Down	[1] + [7] + [4] + [CAM FUNC]
AGC	
On	[1] + [7] + [5] + [CAM FUNC]
Off	[1] + [7] + [6] + [CAM FUNC]
SENS UP CS854A	
On	[1] + [7] + [7] + [CAM FUNC]
Off	[1] + [7] + [8] + [CAM FUNC]
Up	[1] + [7] + [9] + [CAM FUNC]
Down	[1] + [8] + [0] + [CAM FUNC]
SENS UP AUTO CS854A	
On	[1] + [8] + [1] + [CAM FUNC]
Off	[1] + [8] + [2] + [CAM FUNC]
Up	[1] + [8] + [3] + [CAM FUNC]
Down	[1] + [8] + [4] + [CAM FUNC]
LL SYNC phase	
INC	[1] + [8] + [5] + [CAM FUNC]
DEC	[1] + [8] + [6] + [CAM FUNC]
PAN	
180° turn	[1] + [8] + [7] + [CAM FUNC]
CLEANING	
On	[1] + [8] + [8] + [CAM FUNC]
Off	[1] + [8] + [9] + [CAM FUNC]
BW SW AUTO CS854A	
30 sec.	[1] + [9] + [0] + [CAM FUNC]
60 sec.	[1] + [9] + [1] + [CAM FUNC]
300 sec.	[1] + [9] + [2] + [CAM FUNC]
600 sec.	[1] + [9] + [3] + [CAM FUNC]

Notes:

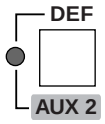
- Shortcut operations marked with * will change parameter settings only. Actual operation takes place when the conditions for the changed settings are met.
- When entering shortcuts marked with **, “NO REGS. ; FLIP ON” may appear on the monitor. Re-enter the shortcut.
- Shortcuts may be ignored while PAN/TILT, ZOOM or FOCUS is in operation.
- PATROL LEARN saves only [1] through [6]+[4], [1]+[6]+[9] and [1]+[7]+[0] in the memory.
- PATROL PLAY stops when a shortcut other than [1]+[6]+[9] or [1]+[7]+[0] is entered.

● Housing/AUX Control

When your system includes a camera housing, the defroster and wiper equipped in it are controlled. When a Receiver is installed in the system, an auxiliary device connected to it such as a buzzer or lamp will be also controlled.

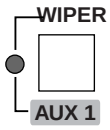
● Defroster

Press the **DEF/AUX 2** button to enable or disable defroster operation for the selected camera. The **DEF/AUX 2** indicator next to the button is lit while it is in operation.



● Wiper

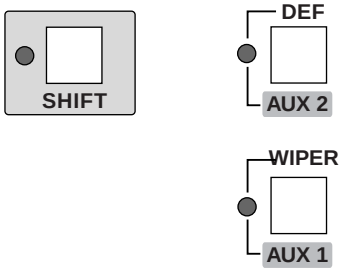
Press the **WIPER/AUX 1** button to enable or disable wiper operation for the selected camera. The **WIPER/AUX 1** indicator next to the button is lit while it is in operation.



Note: To prevent early wiper wear, be sure to turn off the wiper whenever it is not needed, or before selecting another camera for viewing.

● Auxiliary 1/2

1. Press the **SHIFT** button to turn the SHIFT indicator on.
2. Press the **WIPER/AUX 1** or **DEF/AUX 2** button to enable or disable the auxiliary function for the selected camera. The respective indicator next to the button is lit while it is in operation.



Note: Auxiliary control may be ignored while zooming, focusing or panning/tilting is in operation.

■ Data Multiplex Unit Control

When more than one Data Multiplex Unit are connected with the controller as shown in System Connection Example 2 on page 14, you can select a camera directly with the camera number, without typing a system unit address.

● Setting

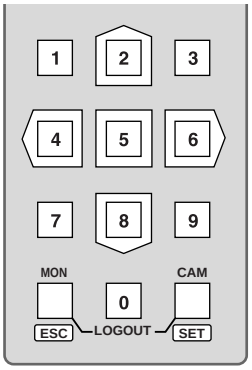
Camera numbers are specified by the UNIT switch or in the setup menu for the WJ-MP204C.
For further details, refer to the manual included with the Data Multiplex Unit.

Unit Address of WJ-MP204C	Camera Number
1	1, 2, 3, 4
2	5, 6, 7, 8
3	9, 10, 11, 12
4	13, 14, 15, 16

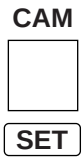
When more than one controller is connected in the system, remember settings are needed for the MODE DIP switch and CONTROLLER NO. switch of the controllers as described on page 16.

● Camera Selection

1. Press a camera number using the numeric buttons.



2. Press the **CAM/SET** button.

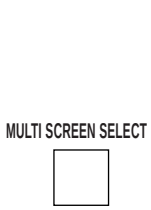


■ Video Multiplexer Control

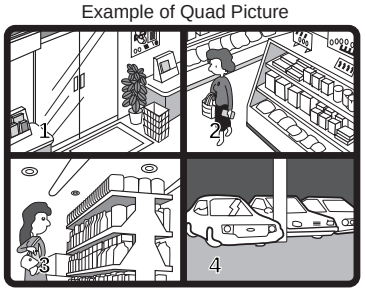
Some of the major functions equipped in a Video Multiplexer are remotely controlled from the System Controller. For more information, refer to the manual included with the Video Multiplexer.
The operating procedures on the following pages assume that you have selected a system unit and a monitor.

● Multiscreen Selection

1. Press the **MULTISCREEN SELECT** button. The selected multiscreen monitor displays a split screen.



Example of Quad Picture



2. Press the button repeatedly to select the number of segments you wish the multiscreen to display. Each time the button is pressed, the number changes as follows depending on the number of inputs (16 or 9).

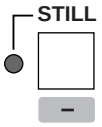
   16-input: 4 → 9 → 16 → 4 screen segments
   9-input: 4 → 9 → 4 screen segments

● Still Picture

There are two ways of displaying still pictures on the multiscreen monitor.

● Specific camera still

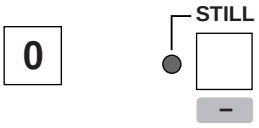
1. Select a camera number using the numeric buttons, then press the **STILL/–** button. The selected camera picture freezes on the multiscreen while the **STILL/–** indicator is lit.



2. Press the **STILL/–** button to cancel still display mode.

● All cameras still

1. Enter 0 with the numeric buttons, then press the **STILL/–** button. All camera pictures freeze on the multiscreen while the **STILL/–** indicator is lit.

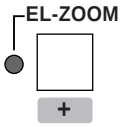


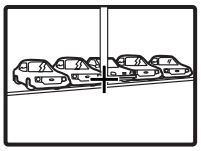
2. Press the **STILL/–** button to cancel the still display mode.

● Electronic Zoom

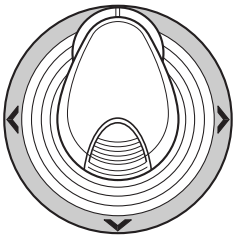
A picture displayed on the monitor can be electronically zoomed in, and the enlarged area in the picture can be moved using the joystick.

1. Press the **EL-ZOOM/+** button. The **EL-ZOOM/+** indicator is lit, and a plus mark [+] appears in the center of the monitor screen.



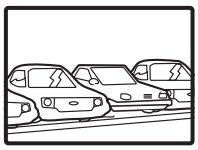


2. Move the [+] mark into the zoom area moving the joystick.



3. Press the **EL-ZOOM/+** button again to zoom.

   You can move the enlarged area on the monitor using



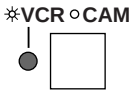
   the joystick.

4. Press the **EL-ZOOM/+** button to cancel the zoom mode. The **EL-ZOOM/+** indicator goes off.

● Viewing Playback

VTR playback pictures are displayed on the selected spot or multiscreen monitor.

1. With the connected VTR in playback mode, press the **VCR/CAM** button to turn on the VCR indicator. Playback pictures are displayed on the selected monitor.

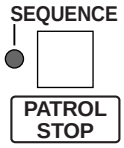


2. Press the **VCR/CAM** button again to cancel viewing playback. The VCR indicator goes off.
   Note: This function is automatic when PLAYBACK AUTO is set to ON in the Video Multiplexer setup and the playback signal is supplied to the Video Multiplexer. Set PLAYBACK AUTO to OFF in the setup when you wish manual operations as described above.

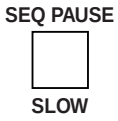
● Sequence Control

A preset sequence is displayed on the selected spot or multiscreen monitor. The paused picture can be moved by one step to the previous or next frame.

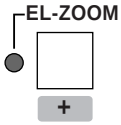
1. Press the **SEQUENCE** button. The sequence is displayed on the monitor while the **SEQUENCE** indicator is lit.



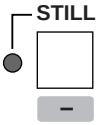
2. To pause the sequence, press the **SEQ PAUSE** button.



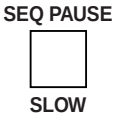
3. To move the sequence one step forward, press the **EL-ZOOM/+** button.



4. To move the sequence one step back, press the **STILL/–** button.



5. To cancel the sequence pause, press the **SEQ PAUSE** button again.

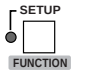
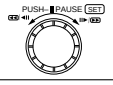
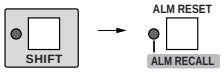
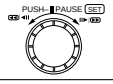
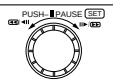
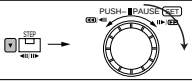
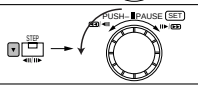
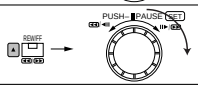
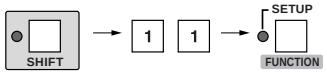
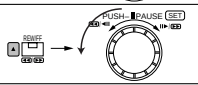
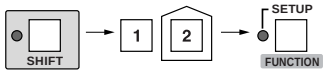
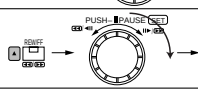
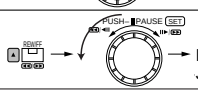


■ Digital Disk Recorder Control

A Digital Disk Recorder is controlled from the System Controller using shortcuts assigned to numeric buttons.
For more information, refer to the manual included with the Digital Disk Recorder.
The operating procedures on the following pages assume that you have selected a system unit and a monitor.

● WJ-HD100 Shortcuts

The shortcuts listed below are available for controlling a digital disk recorder. For more details, refer to the Operating Instructions included with the digital disk recorder.

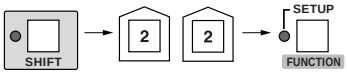
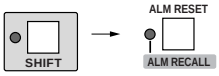
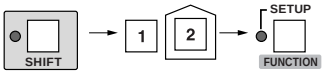
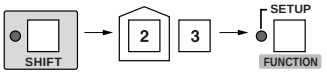
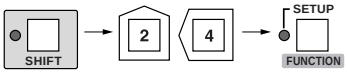
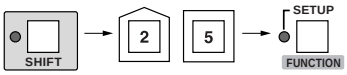
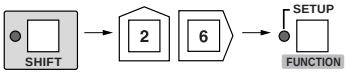
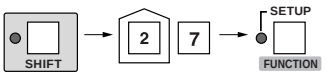
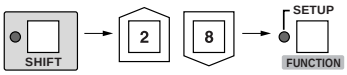
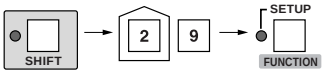
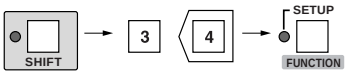
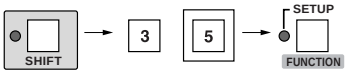
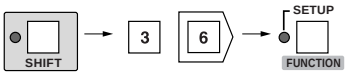
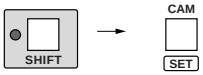
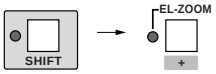
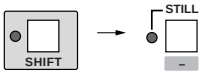
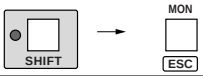
Item	WJ-HD100	WV-CU360CJ	Note
Show/Hide SETUP MENU	Hold down 2 seconds	Hold down 2 seconds 	Button lock is released automatically by opening the setup menu.
Setup Item Selection			
Parameter Selection			
Move Cursor Back A Step			
Show/Hide Alarm History	Operate LCD Button.		
Search Alarm History			
Play/Stop Selected Alarm Record			
Recording			
Stop			
Stop Playback			Exclusive use to stop playback.
Stop Recording			Exclusive use to stop recording.
Playback			
Pause			
Step Playback FWD.			
Step Playback REW.			
Skip Playback FWD.			
Skip Playback REW.			
Jump to Latest.			The top of the latest record will be accessed.
Jump to Oldest.			The top of the oldest record will be accessed.

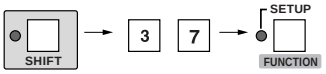
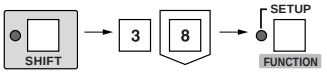
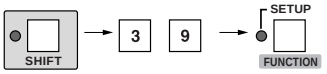
Item	WJ-HD100	WV-CU360CJ	Note
DAYLIGHT SAVINGS	DAYLIGHT SAVINGS	SHIFT → 1 3 → SETUP FUNCTION	
Timer REC Mode Selection	Operate LCD Button.	SHIFT → 1 4 → SETUP FUNCTION	OFF, INT or EXT selectable
Button Lock OFF	Operate LCD Button.	SHIFT → 3 0 → SETUP FUNCTION	
Button Lock ON	Operate LCD Button.	SHIFT → 3 1 → SETUP FUNCTION	

● WJ-HD500A Shortcuts

The shortcuts listed below are available for controlling a digital disk recorder. For more details, refer to the Operating Instructions included with the digital disk recorder.

Item	Controller Operation	Note
Step Playback FWD	SHIFT → 1 → SETUP FUNCTION	
Step Playback REW	SHIFT → 2 → SETUP FUNCTION	
Pause	SHIFT → 4 → SETUP FUNCTION	
Playback	SHIFT → 5 → SETUP FUNCTION	
Recording	SHIFT → 6 → SETUP FUNCTION	Equal to REC button
Stop	SHIFT → 8 → SETUP FUNCTION	For both Manual Recording and Playback
Stop Playback	SHIFT → 9 → SETUP FUNCTION	Exclusive use to stop playback
Stop Recording	SHIFT → 1 0 → SETUP FUNCTION	Exclusive use to stop recording
Alarm Search OFF	SHIFT → 3 2 → SETUP FUNCTION	
Alarm Search ON	SHIFT → 3 3 → SETUP FUNCTION	
Button Lock OFF	SHIFT → 3 0 → SETUP FUNCTION	
Button Lock ON	SHIFT → 3 1 → SETUP FUNCTION	
Daylight Savings ON/OFF	SHIFT → 1 3 → SETUP FUNCTION	
Timer Mode Selection	SHIFT → 1 4 → SETUP FUNCTION	Internal, External, Off
Record List Display ON/OFF	SHIFT → 1 5 → SETUP FUNCTION	Index
Record Search Window ON	SHIFT → 1 6 → SETUP FUNCTION	Index/Shuttle

Item	Controller Operation	Note
Screen Display ON/OFF		
Group Selection		
Show/Hide Alarm Log		
Skip Playback FWD.		Speed change 1/2, 1, 2, 5
Skip Playback REW.		Speed change 1/2, 1, 2, 5
Record List 1 line Up		
Record List 1 line Down		
Record List Turn Next Page		
Record List Turn Prev. Page		
Playback of Selected Record		Record List
Backward Search in Window		Record List
Forward Search in Window		Record List
Increment Parameter in Window		Record List
Decrement Parameter in Window		Record List
Search Window Display ON/OFF		Record List
Alarm Log 1 line Up		
Alarm Log 1 line Down		
Playback of Selected Alarm Record		Alarm Log
Backward Search in Window		Alarm Log
Forward Search in Window		Alarm Log
Increment Parameter in Window		Alarm Log
Decrement Parameter in Window		Alarm Log
Search Window Display Selection		Time & Date, Alarm CH, OFF

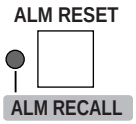
Item	Controller Operation	Note
Copy to DVD		
Copy Cancel		
DVD Copy Record Display		Equal to EL-ZOOM

■ Alarm Operation

When the WV-CU360CJ receives an alarm signal from a system unit, the alarm indicator on the controller blinks.
The alarm indicator changes from blinking to steady light when the alarm is automatically reset.
The camera number [---] appears in the camera section of the LED display.

● Alarm Reset

1. Press the **ALM RESET/ALM RECALL** button.



The alarm indicator on the controller goes off.

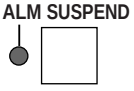
Notes:

- Alarm reset operations including auto reset are applied to all system units, not to a selected one.
- Alarm reset mode differs depending on the system unit connected to the WV-CU360CJ.
- Confirm that the SHIFT button is released.

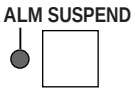
● Alarm Suspension

The alarm suspension mode is activated or deactivated. Use this function when you do not want to be disturbed by alarm input as for example during setup operations.

1. Press the **ALM SUSPEND** button. The **ALM SUSPEND** indicator lights up.
   Alarm input is ignored while the indicator is lit.



2. To cancel alarm suspension, press the **ALM SUSPEND** button again.



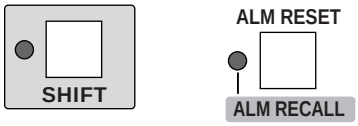
Note: The alarm suspension is applied to all system units, not to a selected one.

● Alarm Recall

The alarm event log is recalled and displayed on the monitor.

1. Select the desired system unit and monitor.

2. Press the **ALM RESET/ALM RECALL** button while the **SHIFT** indicator is lit. The **ALM RECALL** indicator lights up. The alarm log appears on the monitor.



3. To cancel the alarm recall function, press the **ALM RESET/ALM RECALL** button while the **SHIFT** indicator is lit.

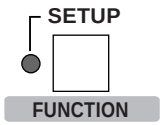
REMOTE SETUP of UNITS & CAMERAS

You can set up the system unit and the camera with the setup menu by this controller.
You can use the controller to set up system units and cameras.
This section describes the main remote setup procedures. Some of the descriptions may not be applicable if they refer to devices not equipped in your system.
For further information on the default settings and operating procedures, refer to the Operating Instructions included with the individual units.

■ System Unit Setup

1. Select the desired system unit compatible with PS•Data mode.

2. Press the **SETUP/FUNCTION** button for more than 2 seconds. The **SETUP** indicator lights up.
   The Setup menu for the system unit appears on the monitor.



Example of Setup Menu for WJ-MP204C

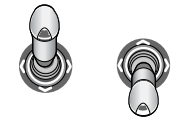
```
WJ-MP204C SETUP MENU x.xx

  COMMUNICATION ↴
  SYSTEM ↴
```

3. To complete the setup, press the **SETUP/FUNCTION** button for 2 seconds or more.
   The **SETUP** indicator goes off.

Note: If you change the default baud rate or parity check, the system unit setup function is disabled.

Keys used for system unit setup



To move the cursor.

To select a parameter.

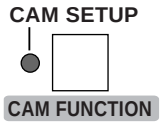
To execute the parameter or enter a submenu

To return to the previous menu

■ Camera Setup

1. Select the desired camera.

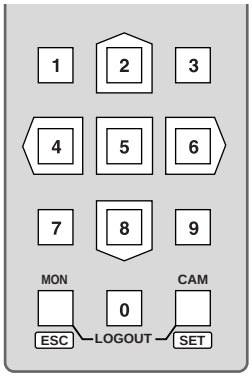
2. Press the **CAM SETUP/CAM FUNCTION** button for 2 seconds or more to access the Camera Setup menu. The **CAM SETUP** indicator lights up.



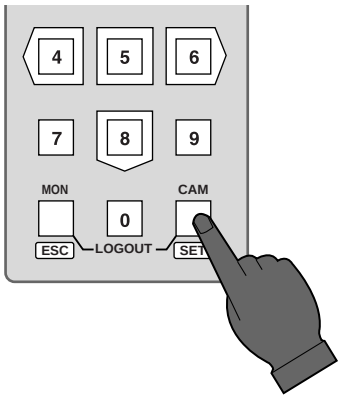
(Example of Camera Setup menu)

```
    *** SET UP MENU ***
PRESET 1*
 MAP ↴
 HOME POSITION 15
 SELF RETURN   10MIN
 AUTO MODE     AUTO PAN ↴
 AUTO PAN KEY  SEQ
 DIGITAL FLIP  OFF
 LOCAL/REMOTE  LOCAL
 SPECIAL1 ↴
CAMERA ↴
RS485 SET UP ↴
```

3. Move the cursor with the numeric buttons 2 (Up) or 8 (Down), then select a parameter with the buttons 6 (Right) or 4 (Left).



4. Press the **CAM/SET** button to execute the parameter or enter a submenu.



5. To return to the previous menu, press the **MON/ESC** button.

6. Press the **CAM SETUP/CAM FUNCTION** button for 2 seconds or more to complete the camera setup.

7. Move the cursor to [SPECIAL] on the Setup menu, and press numeric buttons **4** and **6** simultaneously for 2 seconds or more to display the special menu.

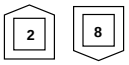
8. Move the cursor to [CAMERA RESET]* on the Setup menu, and press buttons **4**, **5** and **6** simultaneously to reset all the functions to the defaults.

***** The menu to reset the camera functions differs depending on the camera:
[SPECIAL] for the WV-CS650, [SPECIAL 2] for the WV-CS854, and [END] for fixed cameras etc.

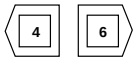
Notes:

- If camera setup is started using the buttons on the camera, all future operations for setup must be performed using the buttons on the camera.
  If camera setup is started using the System Controller, all future operations for setup must be performed using the same controller.
- For further information, refer to the Operating Instructions for the selected camera.

Keys used for camera setup



To move the cursor



To select a parameter

To execute the mode or enter a submenu

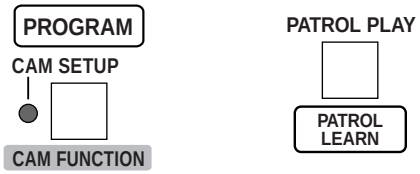
To return to the previous menu

■ Camera Patrol Learning

There are two ways of setting up camera patrol learning.
One is to use the camera setup menu and the other is to operate the camera.
Follow the procedures below to set up while operating the combination camera.

1. Select the desired system unit, monitor and combination camera.

2. Press the **PATROL PLAY/PATROL LEARN** button while holding down the **PROGRAM/CAM SETUP/CAM FUNCTION** button.

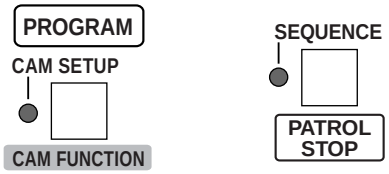


[LEARNING] appears on the monitor.

3. Operate the camera using the following controls so that it traces a routine course most frequently patrolled. The learning is programmed for 30 seconds for later patrol play.
   - Pan/Tilt (Joystick)
   - Iris (Open/Close)
   - Focus (Far/Near)
   - Zoom (Tele/Wide)
   - Preset Position

   Note: The memorized parameters may differ somewhat depending on the camera type. Refer to the manual included with the camera.

4. To stop the learning, press the **SEQUENCE/PATROL STOP** button while holding down the **PROGRAM/CAM SETUP/CAM FUNCTION** button.



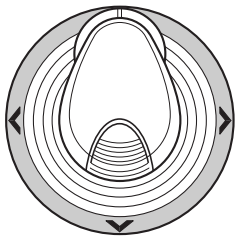
[LEARNING] disappears from the monitor.

■ Camera Preset Position

There are two ways of presetting camera positions.
One is to use the camera setup menu of the combination camera and the other is to operate the System Controller as follows.

1. Select the desired system unit, monitor and camera.

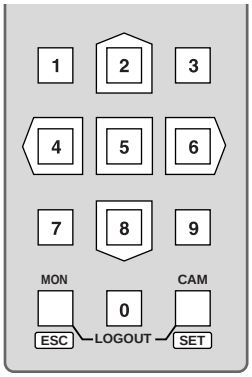
2. Move the camera to a position you wish to preset, using the joystick.



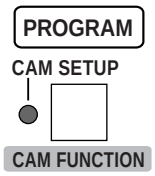
Adjust the picture using the following buttons.
- Iris (Open/Close)
- Focus (Far/Near)
- Zoom (Tele/Wide)

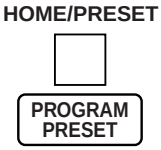
Note: The memorized parameters may differ somewhat depending on the camera type. Refer to the manual included with the camera.

3. Type a number with the numeric buttons for the preset position. The typed number appears in the CAMERA section of the LED display.



4. Press the **HOME/PRESET/PROGRAM PRESET** button while holding down the **PROGRAM/CAM SETUP/CAM FUNCTION** button.
The position and its number are memorized for later recall.

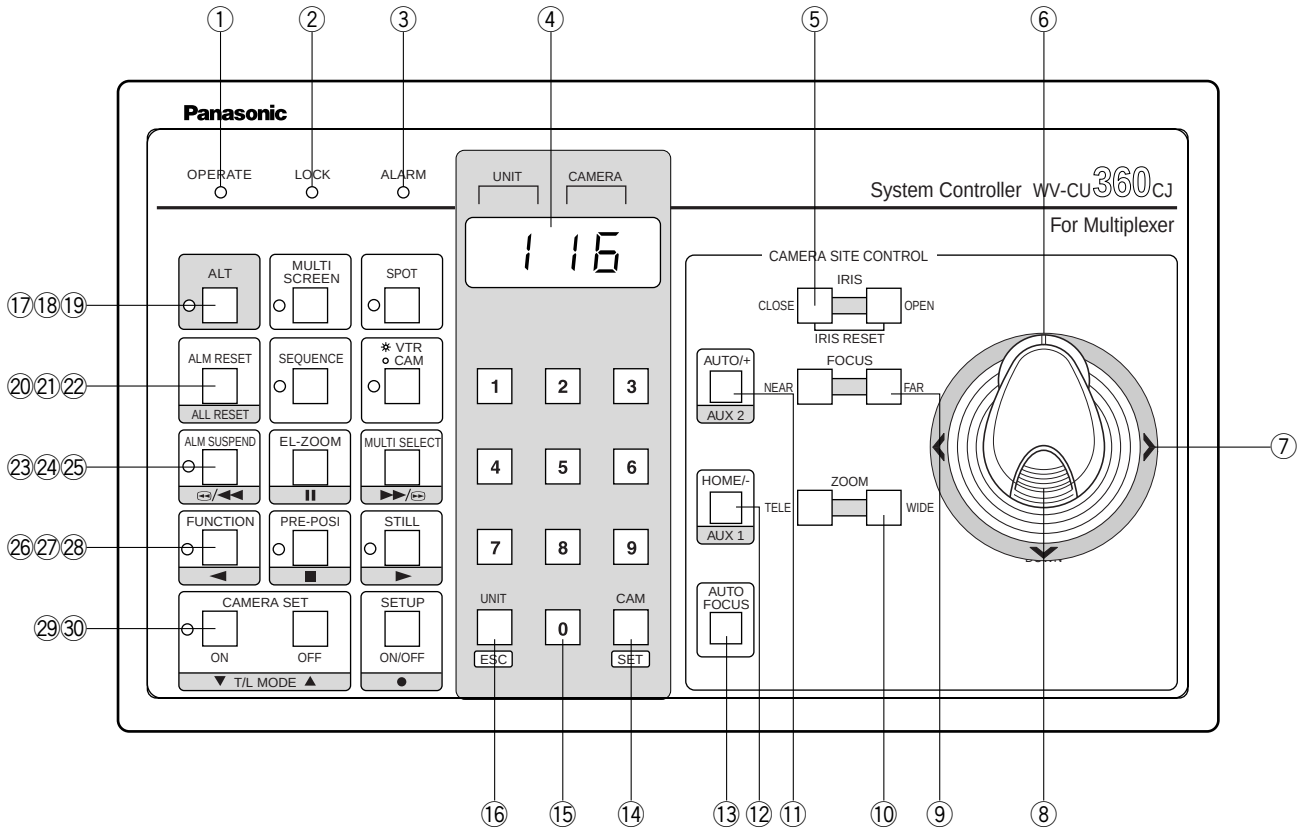




For WJ-FS616C Multiplexer System

MAJOR OPERATING CONTROLS & THEIR FUNCTIONS

■ Front View (Template for WJ-FS616C)



① **Operate Indicator (OPERATE)**
Is lit while power is supplied to the System Controller.

② **Lock Indicator (LOCK)**
Is lit while operation of the System Controller and WJ-FS616C is prohibited by the connected computer. The lock can be released by sending a command from the computer.

③ **Alarm Indicator (ALARM)**
Blinks when an alarm is activated. Blinking changes to steady light when the alarm is automatically reset.
To turn the indicator off, press the **ALM RESET** button.

④ **LED Display (UNIT CAMERA)**
LED display allowing you to confirm the number of the system unit and camera in operation. The CAMERA section will display "–" when operating in multiscreen or sequence mode.

⑤ **Iris buttons (IRIS, CLOSE/OPEN)**
Close or open the lens iris of cameras equipped with the specified lens.
When these buttons are pressed at the same time, the lens iris is reset to the factory setting.

⑥ **Zoom wheel controller**
This control is used for zooming cameras equipped with the specific lens. Moving the control to the right will zoom in the image. Moving the control to the left will zoom out the image.

⑦ **Joystick Controller**
Used to operate the pan/tilt head manually, or to move the cursor to the desired position in the setup menu of the Video Multiplexer.
- ∧: Upward
- ∨: Downward
- <: Left
- >: Right

⑧ **Top button**
Pressing this button will automatically set the lens focus of a specified camera.

⑨ **Focus buttons (FOCUS, NEAR/FAR)**
Adjust the lens focus of cameras equipped with the specified lens.

⑩ **Zoom buttons (ZOOM, TELE/WIDE)**
Zoom cameras equipped with the specified lens.

⑪ **Auto/Increment button (AUTO/+)**
Activates the auto panning function.
During the setup, this button is used to select the desired parameter in the setup menu.

⑫ **Home/Decrement button (HOME/–)**
Moves the camera to the home position.
During the setup, this button is used to select the desired parameter in the setup menu.

⑬ **Auto Focus button (AUTO FOCUS)**
Activates the auto focus function when the specified camera with auto focus feature is selected.

⑭ **Camera/Set button (CAM/SET)**
CAM: Selects a camera. Enter a camera number with the numeric buttons, then press the CAM/SET button.
SET: Executes the currently highlighted setting in the setup menu.

⑮ **Numeric Buttons (0 - 9)**
These buttons are used for numeric input into the system, such as the number of a camera you want to select.

⑯ **Unit/Escape button (UNIT/ESC)**
UNIT: Selects a WJ-FS616C unit. Enter a unit number with numeric buttons, then press the UNIT/ESC button.
ESC: Escapes from the currently highlighted selection and return to the previous menu window in the setup.

⑰ **Alternate button (ALT)**
In combination with certain other buttons, activates special functions.
For example, in combination with the ALM SUSPEND, EL-ZOOM or MULTI SELECT button, it is used to control the VTR (VCR).

⑱ **Multiscreen Monitor button (MULTI SCREEN)**
Selects the multiscreen monitor connected to the MULTISCREEN OUT connector of the Video Multiplexer.
The indicator lights up when the multiscreen monitor is selected.
Note: When REC OUT of the Video Multiplexer is used as connector for the Multiscreen 2 Monitor, this button alternately selects the Multiscreen or Multiscreen 2 Monitor.
The indicator blinks when the Multiscreen 2 monitor is selected.

⑲ **Spot Monitor button (SPOT)**
Selects the spot monitor connected to the SPOT OUT connector of the Video Multiplexer.
The indicator lights up when the spot monitor is selected.

⑳ **Alarm Reset button (ALM RESET)**
Cancels an active alarm.
Pressing this button while the alarm function is activated will reset an alarm of the currently selected unit and return the system to the condition before the alarm function was activated.
Pressing it in combination with the ALT button will reset all alarms.

㉑ **Sequence button (SEQUENCE)**
Activates the sequence mode. In this mode, a series of camera pictures is displayed in succession on the monitor screen for the specified duration.
The indicator lights up when this mode is selected.

㉒ **VTR (VCR)/Camera selection button (VTR/CAM)**
Selects the camera picture or VTR (VCR) playback picture for display on the multiscreen monitor.
The indicator lights up when the VTR (VCR) mode is selected.
Note: The above operation is not valid unless multiscreen monitor is selected using the MULTI-SCREEN button.

㉓ **Alarm Suspend button (ALM SUSPEND)**
Pressing this button for more than two (2) seconds suspends activation of the alarm without changing the current alarm mode setup.
The indicator lights up when the alarm suspension mode is selected.

㉔ **Electronic Zoom button (EL - ZOOM)**
Zooms the picture presently displayed on the multiscreen monitor.

㉕ **Multiscreen Selection button (MULTI SELECT)**
Selects the multiscreen pattern to be displayed on the multiscreen monitor while monitoring the camera picture or VTR (VCR) playback picture.
Pressing this button repeatedly will switch the screen as follows:
Camera Picture:
4 → 7 → 9 → 10 → 13 → 16→ 4 screen segments
VTR (VCR) Playback Picture:
4 → 9 → 16→ 4 screen segments

㉖ **Function button (FUNCTION)**
Displays the VTR (VCR) playback picture with the camera pictures on the multiscreen monitor.
The indicator lights up when the combined mode is selected, and turns off when the playback picture is selected.
During the setup, this button is used to select the next page.

㉗ **Preset Position button (PRE - POSI)**
In combination with the numeric buttons and CAM (SET) button, moves the camera to the desired preset position.

㉘ **Still button (STILL)**

Freezes the picture on the multiscreen monitor.
The indicator lights up when the still mode is selected.

㉙ **Camera Set buttons (CAMERA SET ON/OFF)**

Open or close the camera setup menu on the monitor screen.

ON: Opens the selected camera setup menu on the monitor, if applicable.
The indicator lights up when the camera setup menu is displayed.

OFF: Closes the camera setup menu.

㉚ **Set Up button (SET UP ON/OFF)**

Opens or closes the WJ-FS616/FS616C setup menu on the monitor.

INSTALLATIONS (For WJ-FS616/FS616C)

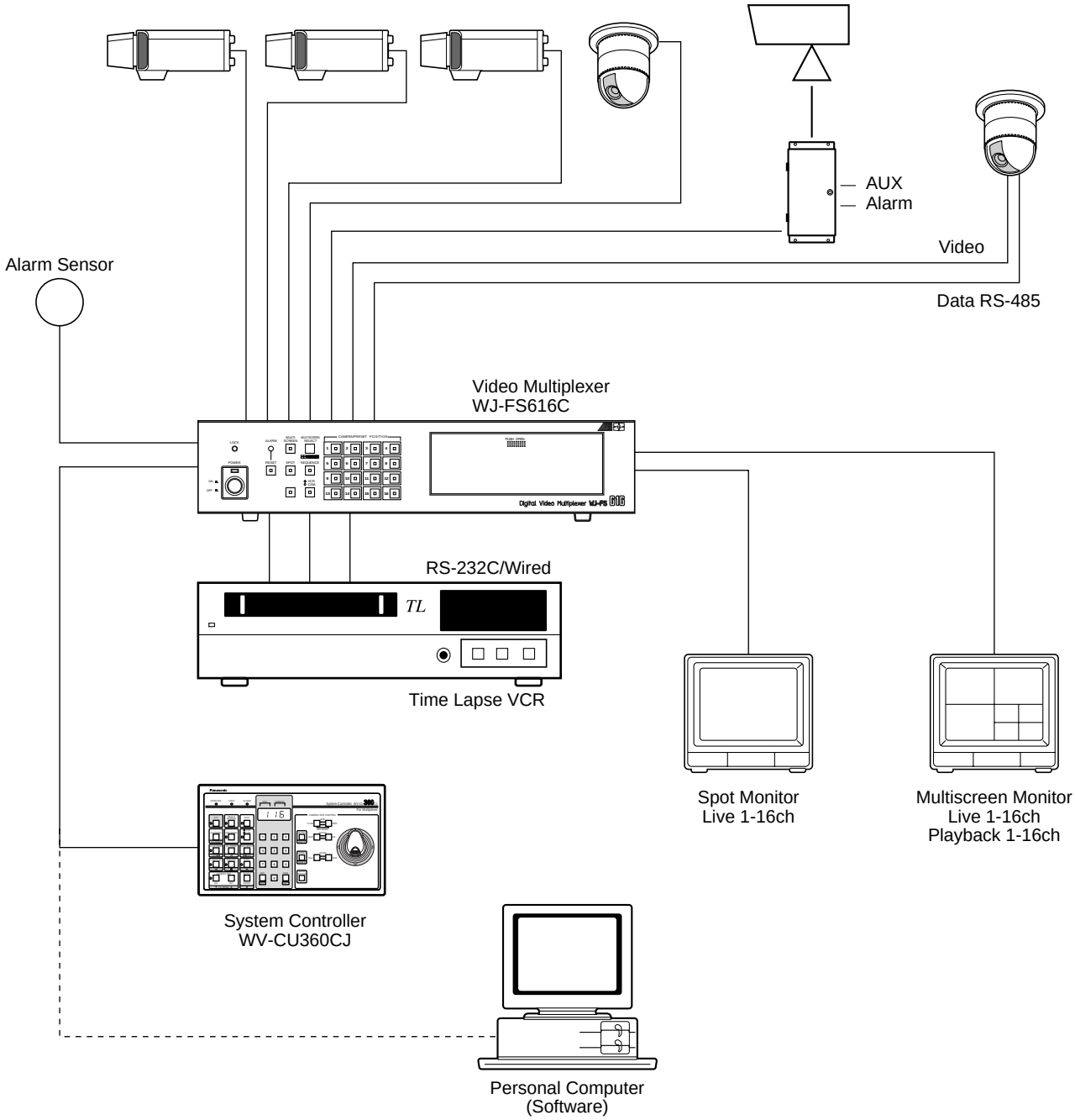
CAUTION

The installation should be made by qualified service personnel or system installers according to the following instructions.

■ System Connections

● Connection Example

The connection example shows cameras and an alarm sensor connected to the Video Multiplexer. A time lapse VTR will record pictures for later playback. The spot monitor and multiscreen monitor will display live and playback pictures while these devices are being operated from System Controller WV-CU360CJ.

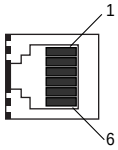


● DATA Port Connection (For Multiplexer)

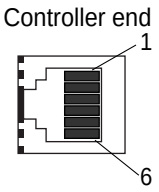
Data ports are connected with RS-485 cables among devices using the Camera Communication protocol as follows.

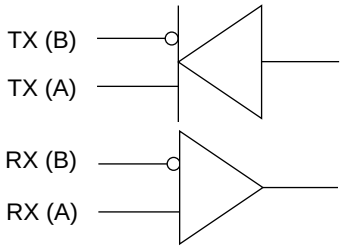
Note: When using cables other than those supplied, make sure to use shielded 4-wire twisted pair cable suitable for RS-485 communication.

- **Internal Diagram**

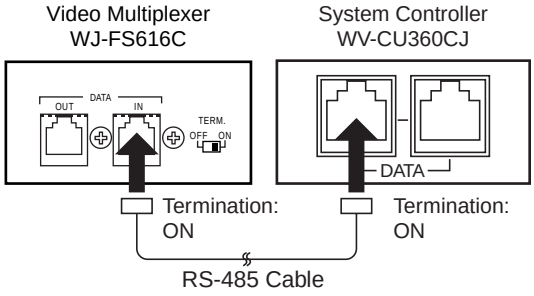


No.	Data Flow	Name	No.
1	–	GND	1
2	WJ-FS616C ← WV-CU360CJ	TX(B)	2
3	WJ-FS616C ← WV-CU360CJ	TX(A)	3
4	WJ-FS616C → WV-CU360CJ	RX(B)	4
5	WJ-FS616C → WV-CU360CJ	RX(A)	5
6	–	GND	6



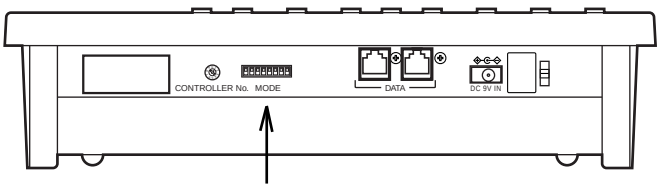


- **Basic Connection**



■ DIP Switch Setting (For Multiplexer)

An 8-bit DIP switch mounted on the rear panel specifies the communication mode, etc. The default position is marked with an asterisk *.

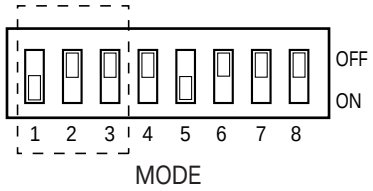


	Function	SW position	
		OFF	ON
Bit 1	Operation mode	See Unit Version*	
Bit 2	Operation mode	See Unit Version*	
Bit 3	Operation mode	See Unit Version*	
Bit 4	Reserved	Fixed to OFF*	Not used
Bit 5	Line termination	Off	On*
Bit 6	Administrator mode	Off*	On
Bit 7	Reserved	Fixed to OFF*	Not used
Bit 8	Data transmission	Fixed to OFF*	Not used

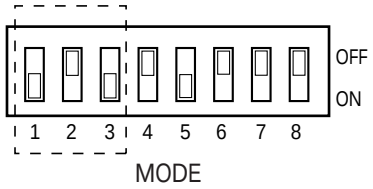
● Unit Version

The unit ID is defined by the upper 3 bits depending on the software version installed in the unit.

- **WJ-FS616**



- **WJ-FS616C**



■ Controller Number Setting

Set this switch always to 1 when using the System Controller in a system including a Multiplexer WJ-FS616/FS616C.

CONTROLLER No.

● Switch Setting Procedures

1. Remove the DC plug from the rear of the controller.

2. Set the MODE switch referring to the table.
   - The bit switches #1 to #3 should be set to positions that match the version of the Multiplexer installed in the system.
   - Bit 5 opens or terminates the communication chain. The switch should be set to OFF when the controller is located in an intermediate position of the chain.
   - Bit 6 specifies either Operator or Administrator as the Administrator mode. Set to on when setting up the controller.
   - Bits 4, 7 and 8 are reserved.

3. Set the CONTROLLER NO. switch to 1.

4. Connect the DC plug to the controller.

SETUP PROCEDURES (For WJ-FS616/FS616C)

To display the setup menus for the WV-CU360CJ System Controller on the LED display, set the MODE switch and power up the controller as described below.

■ Prior to Setup

Do the following before entering the setup mode.

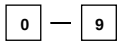
1. Confirm that all necessary connections and switch settings are complete.
2. With the power turned off, move bit #6 of the MODE switch on the rear to ON (administrator) position.
3. Supply power to the controller.
4. Turn on the power of cameras and other system units.
5. The LCD displays [SEtUP]. The controller is ready to enter the setup mode.

When setup is completed, restore the switch to its original position.

1. With the power turned off, move bit #6 of the MODE switch on the rear to OFF (operator) position.
2. Supply power to the controller.

■ Buttons and Controls Used for Setup

The following buttons and joystick operations are used for setup.



Numeric buttons: To select a parameter

CAM/SET button: To execute modes and parameters
To enter a submenu

UNIT/ESC button: To return to the previous menu

Up: To select a setup menu

Down: To select a setup menu

or

Left: To decrease the parameter

or

Right: To increase the parameter

■ Controller Setup

Set up the baud rate and parity check mode for the controller while observing the LED on the front panel.

Menu Selection	Setup Menus: LED Display	Setup Menus: Reading	Setup Menus: Function		Parameter Selection (default*)
	SEtUP	Setup	Initial Display	CAM → SET	LED prompts you to enter password
No / OK	blinking	Administrator Password Prompt	Authorization		Enter a 5-digit password, press CAM SET (12345*)
Move Joystick up and down to select	SPEEd	Speed	Baud Rate (bps)	Press twice: CAM → SET	(1) 2 400 (2) 4 800 (3) 9 600* (4) 19 200
	PrtY	Parity	Parity Check	MON → ESC	(1) None (2) Even*

● Administrator Authorization

1. Press the CAM/SET button while [SEtUP] is displayed. The [- - - - -] prompt appears.

2. Enter a password with the numeric buttons, then press the CAM/SET button.
   The default setting is [12345].

3. If the password entered is valid, [SPEED] appears. If password entry failed, the menu returns to [SEtUP].

● Baud Rate

In this menu, the communication speed (bps: bits per second) is selected. The communication speed should match that of the WJ-FS616/FS616C.

1. Display [SPEED] and press the CAM/SET button twice.

2. Select a parameter entering a bracket-enclosed number, e.g., (3), moving the joystick to right and left, or pressing the [+] and [–] buttons.
   The default setting is 9 600 bps.
   (1) 2 400: 2 400 bps
   (2) 4 800: 4 800 bps
   (3) 9 600: 9 600 bps
   (4) 19 200: 19 200 bps

Note: Selecting a slower rate (e.g., 2 400 bps) will delay the response time (e.g., the time until an activated alarm is reset).

3. Press the **CAM/SET** button to validate the selection.

4. Press the **ESC** button to go back to the previous menu.

● Parity

In this menu the parity check mode is selected.

1. Display [PrtY] and press the **CAM/SET** button twice.

2. Select a parameter with the joystick.
   The default setting is Even.
   n: None
   E: Even parity

3. Press the **CAM/SET** button to validate the selection.

4. Press the **ESC** button to go back to the previous menu.

OPERATING PROCEDURES (For WJ-FS616/FS616C)

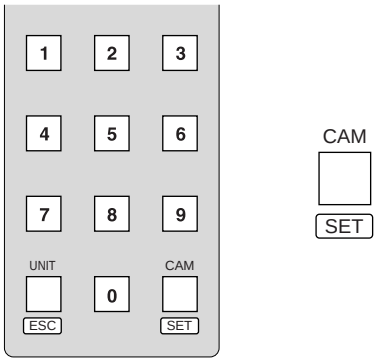
Note: For common operations to the controller and the WJ-FS616/FS616C, please refer to the manual included with the WJ-FS616/FS616C. The following pages describe only operations different from the WJ-FS616/FS616C.

■ Camera Selection

One of the cameras connected to the system unit is selected.

1. Enter a camera number using the numeric buttons.
   The number appears on the LED display.

2. Press the **CAM/SET** button.



Note: [--] appears in the camera section of the LED display when an alarm is activated, when the multi-screen is displayed, or when sequence mode is run.

The following functions of the camera are controlled.
- Pan/tilt
- Focus
- Zoom
- Iris
- Defroster ON/OFF (camera housing)
- Wiper ON/OFF (camera housing)
- Preset Position (Combination Camera)
- Home position (Combination Camera)
- Auto pan (Combination Camera)

The following additional functions can be controlled when using the WV-CS854 or later camera models.
- Switching between colour and B/W picture (Combination Camera)
- Patrol Learn function (Combination Camera)
- Camera functions (Combination Camera)

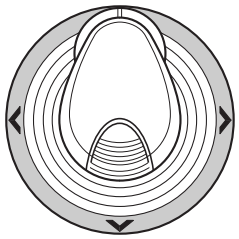
■ Camera Control

Cameras and their peripherals are controlled from the WV-CU360CJ as follows. Some of the descriptions may not be applicable if they refer to devices not equipped in your system.

● Pan/Tilt Control

Proceed as follows to control an ordinary camera mounted on a pan/tilt head or a combination camera in manual or automatic panning mode.

1. Move the pan/tilt head in the desired direction with the joystick controller.



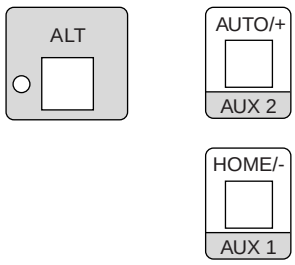
2. Press the **AUTO/+** button to activate a preset auto panning.

● AUX Control

This allows you to control an auxiliary device such as a buzzer or lamp connected to the Receiver or combination camera.

● Auxiliary 1/2

1. Press the **ALT** button to turn on the **ALT** indicator .



2. Press the **AUX 1** or **AUX 2** button to operate or cancel the auxiliary function for the selected camera.

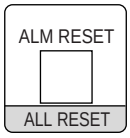
Note: Auxiliary control may be ignored while zooming, focusing or panning/tilting is in operation.

■ Alarm Operation

When the WV-CU360CJ receives an alarm signal from the WJ-FS616/FS616C, the alarm indicator blinks. The alarm indicator changes from blinking to steady light when the alarm is automatically reset. The camera number appears in the camera section of the LED display.

● Alarm Reset

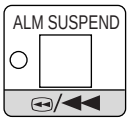
1. Press the **ALM RESET** button while the **ALT** indicator is not lit. An activated alarm is reset and the alarm indicator on the controller goes off.



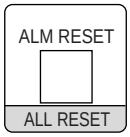
2. To reset all alarms issued by the multiplexers connected in a daisy chain, press the **ALT** button, then press the **ALM RESET** buttons.

● Alarm Suspension

1. Press the **ALM SUSPEND** button for more than 2 seconds to suspend the alarm. The **ALM SUSPEND** indicator lights up.



2. Press the **ALM RESET** button to reset alarm suspension. The **ALM SUSPEND** indicator goes off.



■ VTR (VCR) Control

You can operate a VTR (VCR) connected to the Video Multiplexer from the controller using the buttons listed below with the ALT indicator lit.

Function	Logo	Note
Rewind	◀◀	
Pause	❚❚	
Fast Forward	▶▶	
Reverse Play	◀	
Stop	■	
Playback	▶	
T/L (time-lapse) Mode Down	▼	e.g., change from 72H mode to 24H mode
Up	▲	e.g., change from 24H mode to 72H mode
Recording	●	

■ Camera Setup

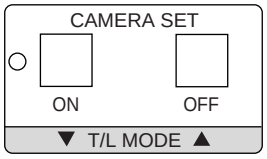
The cameras connected to the WJ-FS616/FS616C are set up from the controller.

Note: Make sure that the multiplexer and the controller are set to identical communication parameters.

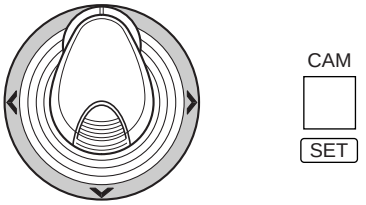
● General Setup

1. Select a camera pressing the numeric buttons, then press the **CAM/SET** button.

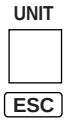
2. Press the **CAMERA SET ON** button. The ON indicator is lit while the CAMERA SET UP MENU is displayed on the monitor.



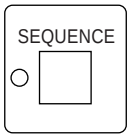
3. Select a setup item by moving the joystick up and down. Select a parameter by moving the joystick to the right or left, then press the **CAM/SET** button to validate the selection or to enter a submenu.



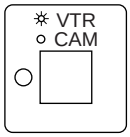
4. Press the **UNIT/ESC** button to execute the selection and to return the menu to a higher layer.



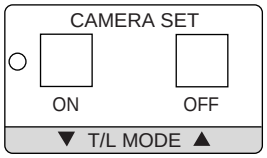
5. Press the **SEQUENCE** button to enter the SPECIAL menu.



6. Press the **VTR/CAM** button to reset all functions to the defaults, or press the **SEQUENCE** button to reset a selected function.



7. Press the **CAMERA SET OFF** button to close the camera setup menu.



● Shortcut for Preset Position Setup

A shortcut can be created for setting a camera position without going through the whole presetting process. Shortcuts are applicable only to cameras having the presetting function.

1. Open the PRESET menu of the camera.

2. Press the **ALT** button while the position setting menu is displayed.

3. Move the camera with the joystick to the position you wish to preset.

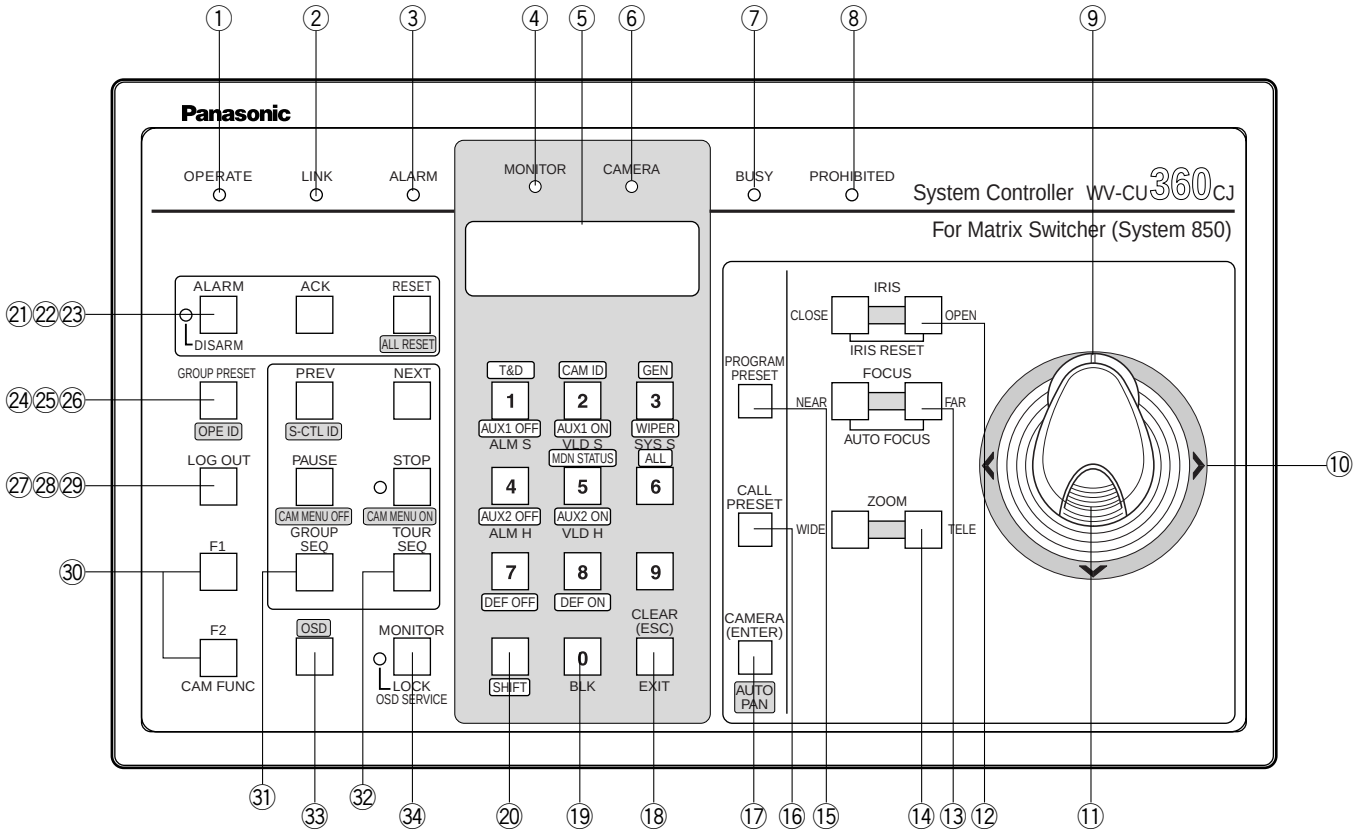
4. Adjust the picture with the **IRIS**, **FOCUS** and **ZOOM** buttons.

5. Press the **ALT** button again. The preset conditions are registered, and the joystick function reverts to moving the cursor.

For System 850
WJ-SX850 Matrix Switcher System

MAJOR OPERATING CONTROLS & THEIR FUNCTIONS

■ Front View (Template for System 850 Matrix Switcher)



① **Operate indicator (OPERATE)**
Is lit while power is supplied to the System Controller.

② **Link indicator (LINK)**
Lights up when communication is established with the Main CPU.

③ **Alarm indicator (ALARM)**
Lights up when an alarm condition exists. Select the alarm number using the numeric buttons, then press the ALARM button and the RESET button to turn off the indicator.

④ **Monitor indicator (MONITOR)**
Lights up when the monitor number is displayed on the LED display.

⑤ **LED Display**
Displays the number of monitors and cameras currently controlled.
It also displays numeric input, error status, etc.

⑥ **Camera indicator (CAMERA)**
Lights up when the camera number is displayed on the LED display.

⑦ **Busy indicator (BUSY)**
Lights up when you attempt to control a monitor or camera that is already used by a higher priority operator, or when the higher priority operator selects the camera or monitor you are currently operating.
Operations from the System Controller are disabled until this indicator goes off.

⑧ **Prohibited indicator (PROHIBITED)**
This indicator lights up for 3 seconds when an attempt is made to gain access to a function that is prohibited by the partition.

⑨ **Zoom wheel controller**
This control is used for zooming cameras equipped with the specific lens. Moving the control to the right will zoom in the image. Moving the control to the left will zoom out the image.

⑩ **Joystick Controller**

Used to manually operate the Pan/Tilt Head, or move the cursor in the camera menu on the active monitor screen.

- **∧:** Upward
- **∨:** Downward
- **<:** Left
- **>:** Right

⑪ **Top button**

Pressing this button will automatically set the lens focus of a specified camera.

⑫ **Iris buttons (IRIS, CLOSE/OPEN)**

Closes or opens the lens iris of cameras equipped with the specified lens.

When these buttons are pressed at the same time, the lens iris is reset to the factory default setting.

⑬ **Focus buttons (FOCUS, NEAR/FAR)**

Adjusts the lens focus of cameras equipped with the specified lens.

When these buttons are pressed at the same time, the lens focus is set automatically if the specified camera with the auto focus feature is equipped.

⑭ **Zoom buttons (ZOOM, WIDE/TELE)**

Zoom the image in or out if the camera is equipped with the specified lens.

⑮ **Program Preset button (PROGRAM PRESET)**

In combination with the numeric buttons and CAMERA (ENTER) button, saves a preset position of the camera in a system equipped with the specified cameras.

To save a preset position, move the camera to the position to be preset and select a preset number by pressing the numeric buttons. Hold down the PROGRAM PRESET button, then press the CAMERA (ENTER) button.

⑯ **Call Preset button (CALL PRESET)**

In combination with the numeric buttons, moves the pan/tilt head of the selected camera to a preset position in a system equipped with the specified cameras.

⑰ **Camera/Enter button [CAMERA (ENTER)]**

CAMERA: Used for camera selection. Select a camera by pressing the corresponding numeric buttons, followed by the CAMERA (ENTER) button.

ENTER: In combination with the numeric buttons, enter numeric input, such as operator ID and password.

It is also used to execute the currently highlighted selection and enter a submenu of the camera menu.

Pressing CAMERA (ENTER) while holding down the SHIFT button will activate the auto panning function of the selected camera (AUTO PAN).

⑱ **Clear/Escape button [CLEAR (ESC)]**

CLEAR: Clears numeric input from the LED display.

ESC: Escapes from the currently highlighted selection and return to the previous page of the camera menu.

This button is also used to exit from alarm selection mode to normal operation mode.

⑲ **Numeric buttons (0 - 9)**

Used for numeric input into the system such as the camera and monitor number, sequence number, preset position, etc.

Pressing the buttons shown below while holding down the SHIFT button will select special functions.

- **1:** Turns off the user auxiliary 1 switch of the receiver. (AUX1 OFF)
- **2:** Turn on the user auxiliary 1 switch of the receiver. (AUX1 ON)
- **3:** Turns on the housing wiper of the camera until these buttons are released. (WIPER)
- **4:** Turns off the user auxiliary 2 switch of the receiver. (AUX2 OFF)
- **5:** Turns on the user auxiliary 2 switch of the receiver. (AUX2 ON)
- **7:** Turns off the housing defroster of the camera. (DEF OFF)
- **8:** Turns on the housing defroster of the camera. (DEF ON)

⑳ **Shift button (SHIFT)**

Pressing this button in combination with buttons to which a special function has been assigned will activate these functions.

㉑ **Alarm button (ALARM), Disarm indicator (DISARM)**

In combination with the Numeric buttons, selects an alarm. To select an activated alarm, press the numeric buttons, followed by the ALARM button.

Pressing this button repeatedly enables or disables the cameras and monitor assigned to perform the alarm activities.

The DISARM indicator next to the button is lit while alarm activities are disabled.

㉒ **Alarm Acknowledge button (ACK)**

Acknowledge an activated alarm. Select the alarm by pressing the numeric buttons, followed by the ALARM button. Select the desired alarm action number by pressing the numeric buttons, then press the ACK button. The ACK indicator will light.

After acknowledging the alarm, press the RESET button to reset the alarm. The ACK indicator will go off.

㉓ **Alarm Reset button (RESET)**

Cancels an activated alarm.

Press this button to reset an alarm activated in the currently active unit.

Pressing this button while holding down the SHIFT button cancels all currently activated alarms at a time (ALL RESET).

Pressing RESET in the camera menu will reset the parameter of a selected item or open the Special camera menu when the cursor is positioned on SPECIAL in the menu. Pressing it while holding down the SHIFT button will restore all factory default settings.

㉔ **Group Preset button (GROUP PRESET)**

In combination with the numeric buttons, activates a previously programmed Group Preset function.

Pressing this button while holding down the SHIFT button will display the Operator ID number on the LED Display for about 3 seconds (OPE ID).

㉕ **Previous button (PREV)**

Moves a Tour Sequence one step backward from the step that was previously paused on the active monitor by pressing the PAUSE button.

This button is also used to select a camera. Pressing PREV while holding down the CAMERA (ENTER) button will replace the currently selected camera with the next lower camera number, if the active monitor is in Spot mode.

Similarly pressing PREV while holding down the MONITOR button will select the next lower monitor number.

When selecting alarms, pressing PREV while holding down the ALARM button will select the previous alarm.

Pressing this button while holding down the SHIFT button will display the Controller ID number on the LED Display for about 3 seconds (S-CTL ID).

㉖ **Next button (NEXT)**

Moves a Tour Sequence one step forward from the step that was previously paused on the active monitor by pressing the PAUSE button.

The button is also used to select a camera. Pressing NEXT while holding down the CAMERA (ENTER) button will replace the currently selected camera with the next higher camera number, if the active monitor is in Spot mode.

Similarly pressing NEXT while holding down the MONITOR button will select the next higher monitor number.

When selecting alarms, pressing NEXT while holding down the ALARM button will select the next alarm.

㉗ **Log Out button (LOG OUT)**

In combination with the CAMERA (ENTER) button, logs out from the system.

To prevent a log-out error, press CAMERA (ENTER) while holding down the LOG OUT button.

㉘ **Pause button (PAUSE)**

Pauses a Tour or Group Sequence that is being run on the active monitor.

Pressing PAUSE while holding down the SHIFT button will close the camera menu on the active monitor. The STOP indicator will go off. (CAM MENU OFF)

㉙ **Stop button (STOP)**

Ends a Tour Sequence that is being run on the active monitor.

To end a Group Sequence, select one of the monitors that displays the selected sequence, then press this button.

Pressing STOP while holding down the SHIFT button will open the camera menu on the active monitor. The STOP indicator will light. (CAM MENU ON)

㉚ **Function buttons (F1, F2)**

Provide access to camera attributes and operating functions.

F1: Reserved for future use.

F2: Pressing this button will select the mode for controlling selected camera functions (CAM FUNC).

㉛ **Group Sequence button (GROUP SEQ)**

In combination with the numeric buttons, runs a Group Sequence on the assigned monitors.

Pressing GROUP SEQ will restart a forward sequence from the next step that was previously paused by pressing the PAUSE button.

㉜ **Tour Sequence button (TOUR SEQ)**

In combination with the numeric buttons, runs a Tour Sequence on the active monitor.

Pressing TOUR SEQ will restart a forward sequence from the next step that was previously paused by pressing the PAUSE button.

㉝ **OSD (On Screen Display) button (OSD)**

Displays or hide some of the information on the screen of the selected monitor. Press the numeric buttons shown below, then press the OSD button.

1: Clock Display (T&D)
2: Camera Title Display (CAM ID)
3: General Status Display (GEN)
5: Monitor Status Display (MON STATUS)
6: All Displays except clock (ALL)

㉞ **Monitor/Monitor Lock/OSD service button (MONITOR/OSD SERVICE), Lock indicator (LOCK)**

Selects a monitor by entering a monitor number with the numeric buttons, and then pressing this button.

To lock or unlock the currently selected monitor, press this button while holding down the SHIFT button. While the LOCK indicator is lit, other operators will be barred from accessing the monitor.

To access OSD service, press the numeric buttons shown below, then press this button.

1: ALMS, Alarm status
2: VLDS, Video loss detection status
3: SYS S, System status
4: ALM H, Alarm history
5: VLDH, Video loss detection history

INSTALLATIONS (For System 850)

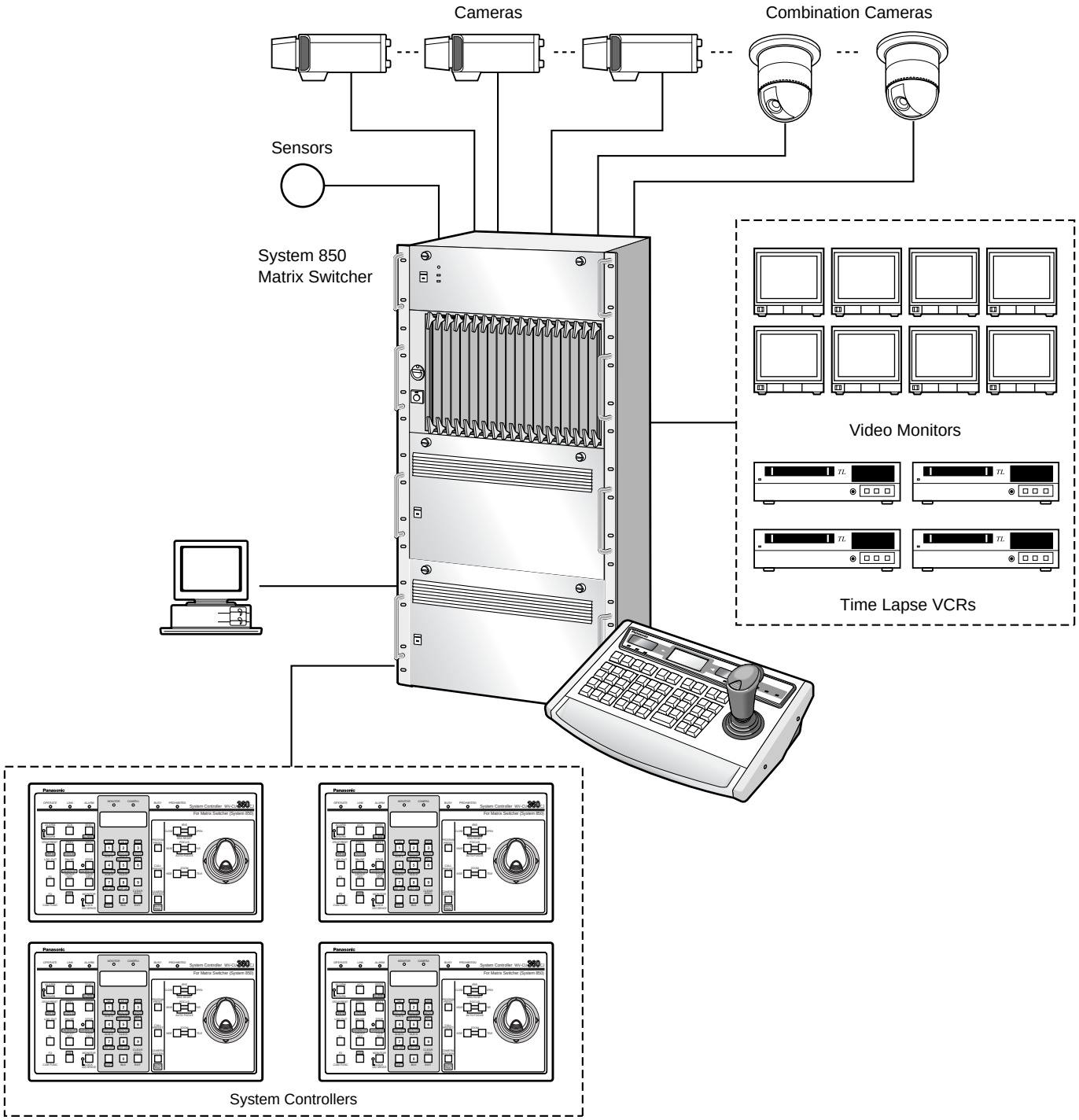
CAUTION

The installation should be made by qualified service personnel or system installers according to the following instructions.

■ System Connections

● Connection Example

The connection example shows a large-scale system having a number of cameras, alarm sensors, monitors and so forth connected to the System 850 Matrix Switcher.
The System Controller WV-CU360CJ provides major operating functions to control the system.

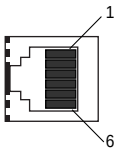


● DATA Port Connection

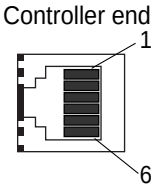
Data ports are connected with RS-485 cables among devices using Camera Communication protocol as follows.

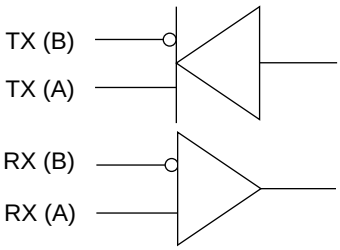
Note: When using cables other than those supplied, make sure to use shielded 4-wire twisted pair cable suitable for RS-485 communication.

- **Internal Diagram**

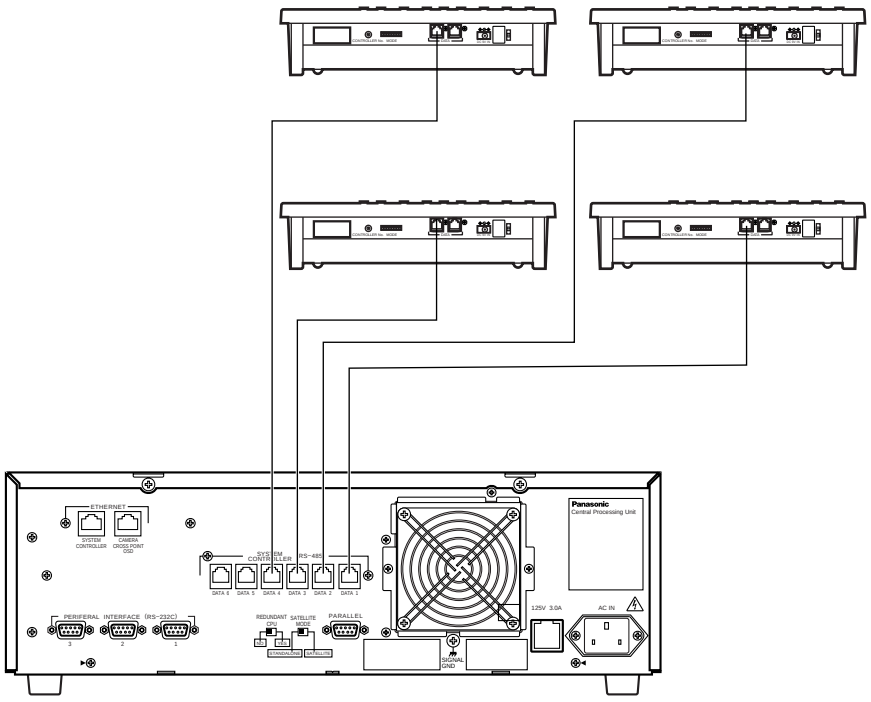


No.	Data Flow	Name	No.
1	–	GND	1
2	Main CPU ← WV-CU360CJ	TX(B)	2
3	Main CPU ← WV-CU360CJ	TX(A)	3
4	Main CPU → WV-CU360CJ	RX(B)	4
5	Main CPU → WV-CU360CJ	RX(A)	5
6	–	GND	6





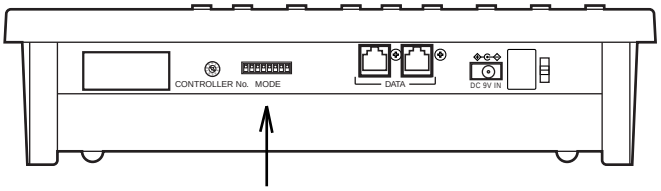
- **Basic Connection**



Main CPU

■ DIP Switch Setting

An 8-bit DIP switch mounted on the rear panel specifies communication mode, etc. The default position is marked with an asterisk *.



	Function	SW position	
		OFF	ON
Bit 1	Operation mode	*	See below
Bit 2	Operation mode	*	See below
Bit 3	Operation mode	*	See below
Bit 4	Reserved	*	Not used
Bit 5	Line termination	Off	On*
Bit 6	Administrator mode	Off*	On
Bit 7	Baud Rate Selection	Not used	Fixed to ON
Bit 8	Repeat Transmissions	1 time*	3 times

■ Controller Number Setting

Set this switch always to 1 when using the System Controller in a System 850.

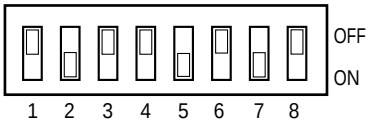
CONTROLLER No.

● Switch Setting Procedures

Set the MODE DIP switch and CONTROLLER NO. switch as follows.

1. Remove the DC plug from the rear of the controller.

2. Set the switches as follows.



MODE

- Bit 1 should be set to OFF*.
- Bit 2 should be set to ON.
- Bit 3 should be set to OFF*.
- Bit 4 should be set to OFF*.
- Bit 5 should be set to ON* when connecting with a System 850 in a home run (one to one) fashion.
- Bit 6 should be set to OFF* normally, or ON (Administrator mode) when setting up the controller.
- Bit 7 should be set to ON. The baud rate is selected in the controller setup.
- Bit 8 should be set to OFF* normally.

3. Connect the DC plug to the controller.

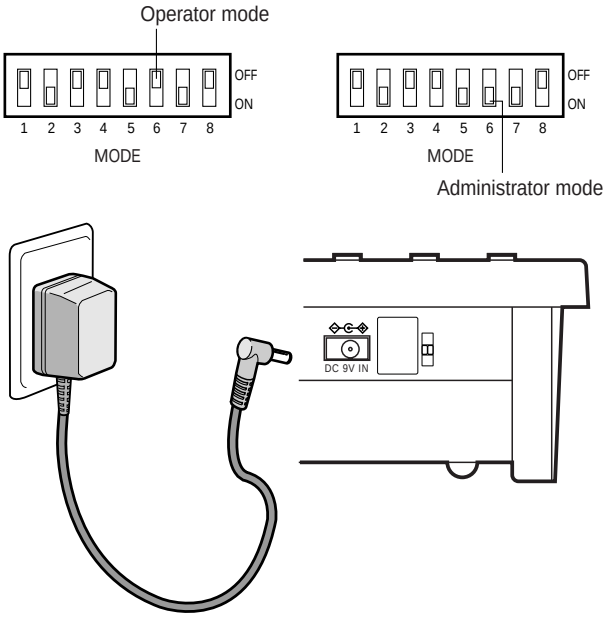
SETUP PROCEDURES (For System 850)

To display the setup menus for the WV-CU360CJ System Controller on the LED display, set the MODE switch and power up the controller as described below.

■ Prior to Setup

Do the following before entering the setup mode.

1. Confirm that all necessary connections and switch settings are complete.
2. With the power turned off, move bit #6 of the MODE switch on the rear to ON position (Administrator mode).
3. Supply power to the controller.
4. Turn on the power of cameras and other system units.
5. The LCD displays [SEtUP]. The controller is ready to enter the setup mode.

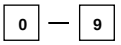


When setup is completed, restore the switch to its original position.

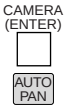
1. With the power turned off, move bit #6 of the MODE switch on the rear to OFF position.
2. Supply the power to the controller.

■ Buttons and Controls Used for Setup

The following buttons and joystick operations are used for setup.



Numeric buttons: To select a parameter



CAM (ENTER) button: To execute modes and parameters
To enter a submenu

CLEAR (ESC) button: To return to the previous menu

Up: To select a setup menu

Down: To select a setup menu

Left: To decrease the parameter

Right: To increase the parameter

■ Setup Procedures

Set up the baud rate and parity check mode for the controller while observing the LED on the front panel.

Menu Selection	Setup Menus: LED Display	Reading	Function		Parameter Selection (default*)
	SEtUP	Setup	Initial Display	CAM → SET	LED prompts you to enter password
No / OK	blinking	Administrator Password Prompt	Authorization		Enter a 5-digit password, press CAM SET (12345*)
Move Joystick up and down to select	SPEEd	Speed	Baud Rate (bps)	Press twice: CAM → SET	(1) 2 400 (2) 4 800 (3) 9 600* (4) 19 200
	PrtY	Parity	Parity Check	MON → ESC	(1) None* (2) Even

● Administrator Authorization

1. Press the **CAMERA (ENTER)** button while [SEtUP] is displayed. The [- - - - -] prompt appears.
2. Enter a password using the numeric buttons, then press the **CAMERA (ENTER)** button.
   The default setting is [12345].
3. If the password entered is valid, [SPEED] appears. If password entry failed, the menu returns to [SEtUP].

● Baud Rate

In this menu, the communication speed (bps: bits per second) is selected. The communication speed should match that of the WJ-SX850.

1. Display [SPEED], and press the **CAMERA (ENTER)** button twice.
2. Select a parameter entering a bracket-enclosed number, e.g., (3), moving the joystick.
   The default setting is 9 600 bps.

   (1) 2 400: 2 400 bps
   (2) 4 800: 4 800 bps
   (3) 9 600: 9 600 bps
   (4) 19 200: 19 200 bps

   Note: Selecting a slower rate (e.g., 2 400 bps) will delay the response time (e.g., the time until an activated alarm is reset).
3. Press the **CAMERA (ENTER)** button to validate the selection.
4. Press the **CLEAR(ESC)** button to return to the [SPEED] menu.

● Parity

In this menu, the parity check mode is selected.

1. Display [PrtY] and press the **CAMERA (ENTER)** button twice.
2. Select a parameter with the joystick.
   The default setting is None.
   n: None
   E: Even parity
3. Press the **CAMERA (ENTER)** button to validate the selection.
4. Press the **CLEAR(ESC)** button to return to the [SPEED] menu.

Note: The baud rate and parity check mode of the WJ-SX850 and the controller must be the same, otherwise data communications will not function.

OPERATING PROCEDURES (For System 850)

Note: This section describes only some important operations such as log-in, log-out, and different operations from the front panel of the System 850. Please refer to the manual included with the System 850 for further information on camera selection, monitor selection and so forth.

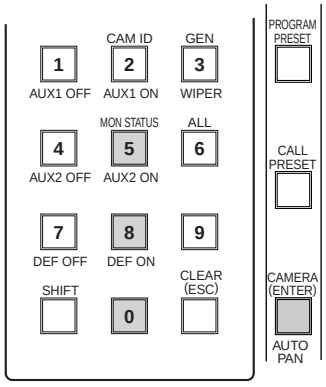
■ Log-in & Log-out

● Log-in

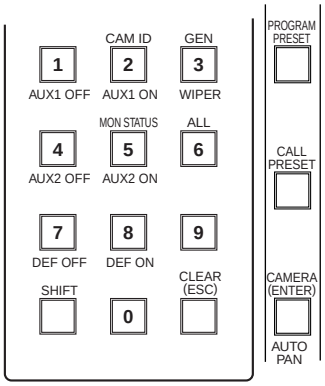
1. Turn on the power switches of all system components.

2. Turn on the power of the WV-CU360CJ System Controller by connecting the AC adapter to the AC outlet.
   The OPERATE indicator lights up and “NO USER” will appear on the LED display of the System Controller.

3. Enter your registered Operator ID number (up to 5 digits) using the numeric buttons, then press the **[CAMERA (ENTER)]** button. The underline appears on the LED display.



4. Enter your registered Password (up to 5 digits) using the numeric buttons, then press the **[CAMERA (ENTER)]** button.
   If the operator ID and password entered are valid, the LED will display “READY”.

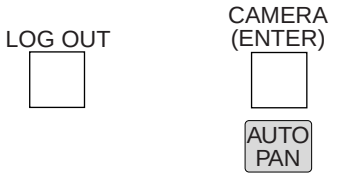


Note: If login has failed (operator or password error), the PROHIBITED indicator on the controller will light up and “NO ACCESS” will blink on the LED display for about 3 seconds. Then the login procedure returns to the start.

● Log-out

1. While holding down the **LOG OUT** button, press the **[CAMERA (ENTER)]** button .

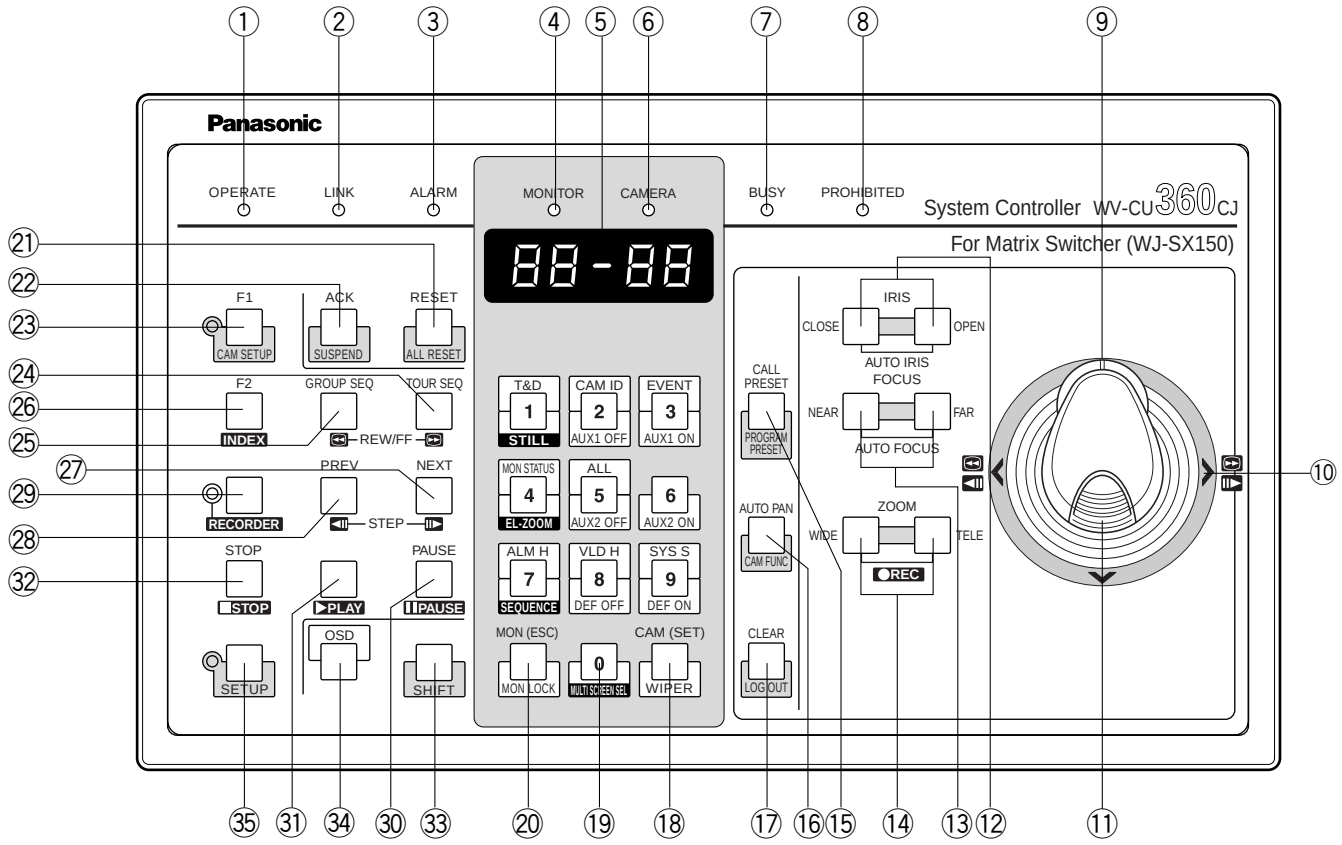
   “NO USER” is displayed on the LED display.



For WJ-SX150
Matrix Switcher System

MAJOR OPERATING CONTROLS & THEIR FUNCTIONS

■ Front View (Template for WJ-SX150)



① **Operation indicator (OPERATE)**
Lights up when the controller's power is turned on.

② **Link indicator (LINK)**
Lights up when communication is established with the matrix switcher.

③ **Alarm indicator (ALARM)**
Lights up when an alarm condition exists.

④ **Monitor indicator (MONITOR)**
Lights up when the monitor number appears on the LED display.

⑤ **LED Display**
Displays the monitor number, camera number, numeric entry and error status, etc.

⑥ **Camera indicator (CAMERA)**
Lights up when the camera number appears on the LED display.

⑦ **Busy indicator (BUSY)**
Lights up when the higher-priority operator selects the camera or monitor you are currently operating.
Operations from the system controller are disabled until this indicator goes off.

⑧ **Prohibited indicator (PROHIBITED)**
Blinks when an operator attempts to control a monitor (or camera) that is already used by a higher-priority operator or the operator has done the prohibited operation.

⑨ **Zoom wheel controller**
This control is used for zooming cameras equipped with the specific lens. Moving the control to the right will zoom in the image. Moving the control to the left will zoom out the image.

⑩ **Joystick**

Use this joystick to manually operate cameras, camera site accessories and a recorder, or to move the cursor in SETUP MENU on the active monitor screen.

∧: Up
∨: Down
<: Left, rewind*, backward field advance*
>: Right, fast-forward*, forward field advance*

*Available after pressing the RECORDER button while connecting to a recorder.

⑪ **Top button**

Pressing this button will automatically set the lens focus of a specified camera.

⑫ **Iris buttons (IRIS CLOSE/OPEN)**

Close or open the lens iris of cameras equipped with the specified lens.

Press the CLOSE and OPEN buttons simultaneously. The lens iris is reset to the factory default setting.

⑬ **Focus buttons (FOCUS NEAR/FAR)**

Adjust the lens focus of cameras equipped with the specified lens.

Press the NEAR and FAR buttons simultaneously. The lens focus is adjusted automatically, if the specified auto focus camera is equipped.

⑭ **Zoom buttons (ZOOM WIDE/TELE)**

Press these buttons to zoom the lenses equipped with the specified cameras.

Press the WIDE and TELE buttons simultaneously. The recording is started.

⑮ **Call Preset button (CALL PRESET/PROGRAM PRESET)**

To program the selected camera's preset position, press this button in combination with the numeric buttons. (The specified cameras support this function.)

⑯ **Auto Pan button (AUTO PAN/CAM FUNC)**

Activates the auto panning function of cameras equipped with this feature.

To execute camera functions, press this button in combination with the numeric buttons. (The specified cameras support this function.)

⑰ **Clear button (CLEAR/LOG OUT)**

Use this button to clear numeric input on the LED display, or exit from the ALARM HISTORY table, the VIDEO LOSS HISTORY table, or the SYSTEM STATUS table.

To logout of the system, press this button while holding down the SHIFT button.

⑱ **Camera (Set) button [CAM (SET)/WIPER]**

CAM: To select a camera, press the corresponding numeric button, followed by this button.

SET: To enter numeric input, such as operator ID and password, press this button in combination with the numeric buttons.

Also use this button to execute the currently highlighted selection and go into a submenu of SETUP MENU.

WIPER: To turn on the housing wiper of the camera, press this button while holding down the SHIFT button.

⑲ **Numeric buttons**

Press these buttons to enter numbers into the system such as the camera and monitor number, sequence number, preset position, etc.

- In combination with the SHIFT button, parameter selection in OSD (On-screen Display), operation of the monitor status or search in a history table become available.

- In combination with the RECORDER button, electronic zooming and multiscreen sequence are available.

⑳ **Monitor (Escape) button [MON (ESC)/MON LOCK]**

MON: Press this button to select a monitor.

To select a monitor, press the corresponding numeric buttons, followed by the MON (ESC) button.

ESC: Press this button to escape from the currently highlighted selection and return to the previous page of SETUP MENU.

MON LOCK: To prevent other operators from controlling the monitor, press this button while holding down the SHIFT button. To release the lock, press this button while holding down the SHIFT button again.

㉑ **Alarm Reset button (RESET/ALL RESET)**

RESET: To reset an alarm activated in the currently active monitor, press this RESET button.

ALL RESET: To cancel all activated alarms at a time, press this button while holding down the SHIFT button.

㉒ **Alarm Acknowledge button (ACK/SUSPEND)**

ACK: Acknowledges an activated alarm.

To select the alarm monitor, press the ALARM button.

To select the desired alarm action number, press the numeric buttons, then press this ACK button. "ACK" will appear on the monitor.

To reset the alarm, press the RESET button after acknowledging the alarm. "ACK" will go out.

SUSPEND: To suspend an activated alarm, press this button while holding down the SHIFT button. "ALM SUSPENDED" will appear on the monitor. To cancel the suspension, press this button while holding down the SHIFT button again.

㉓ **Function 1 button (F1/CAM SETUP)**
Press this button while holding down the SHIFT button to open the camera's SETUP MENU on the active monitor.
The function as the F1 button is reserved for future use.

㉔ **Tour Sequence button (TOUR SEQ)**
Press this button, in combination with the numeric buttons, to run a tour sequence on the active monitor.

㉕ **Group Sequence button (GROUP SEQ)**
Press this button to select a group sequence.
To select a group, press the corresponding numeric buttons, followed by the GROUP SEQ button.

㉖ **Function 2 button (F2/INDEX)**
Displays date and time entry form during the recorder mode.

㉗ **Next button (NEXT)**
Moves a tour sequence one step forward from the step previously paused on the active monitor.
Also selects a camera. If the active monitor is in the spot mode, press NEXT while holding down the CAM (SET) button, to replace the currently selected camera with the next higher-numbered camera.
During the recorder mode, this button moves the playback image one step forward.

㉘ **Previous button (PREV)**
Moves a tour sequence one step backward from the step previously paused on the active monitor.
Also selects a camera. If the active monitor is in spot mode, press PREV while holding down the CAM (SET) button, to replace the currently selected camera with the next lower-numbered camera.
During the recorder mode, this button moves the playback image one step forward.

㉙ **Recorder button (RECORDER)**
To enter the recording mode, press this button.
Note: Only one operator can enter the recorder mode at one time.

㉚ **Pause button (PAUSE)**
Pauses a tour sequence, and the playback of the recorded images* that is being run on the active monitor.
Also restarts the sequence from the next step forward, or the playback of the recorded images*.

㉛ **Play button (PLAY)**
Starts the playback of the recorded images*.

㉜ **Stop button (STOP)**
Ends a tour sequence, or stops the playback of the recorded images* that is being run on the active monitor.

㉝ **Shift button (SHIFT)**
To activate these functions, press this button, in combination with buttons associated with special functions.

㉞ **On-screen Display button (OSD)**
Toggles the currently selected display items on the active monitor.
1: Clock display (T&D)
2: Camera title display (CAM ID)
3: Event display (EVENT)
4: Monitor status display (MON STATUS)
5: All displays (ALL)
7: ALARM HISTORY table (ALM H)
8: VIDEO LOSS STATUS table (VLD H)
9: SYSTEM STATUS table (SYS S)

㉟ **Setup button (SETUP)**
To display the unit's SETUP MENU, press this button while holding down the SHIFT button.

* The playback of the recorded images is possible when a recorder is connected.

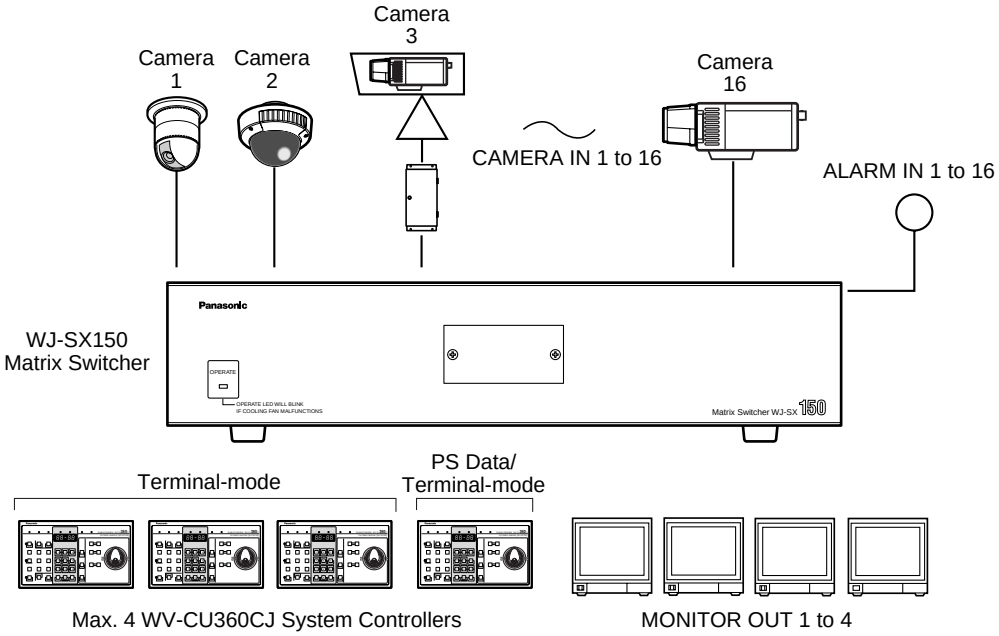
INSTALLATIONS (For WJ-SX150)

CAUTION

The installation should be made by qualified service personnel or system installers according to the following instructions.

■ System Connections

● Connection Example

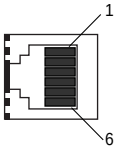


● DATA Port Connection

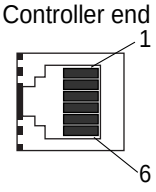
Data ports are connected with RS-485 cables among devices.

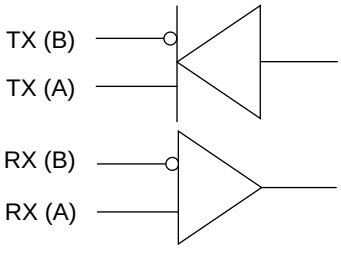
Note: When using cables other than those supplied, make sure to use shielded 4-wire twisted pair cable suitable for RS-485 communication.

- **Internal Diagram**

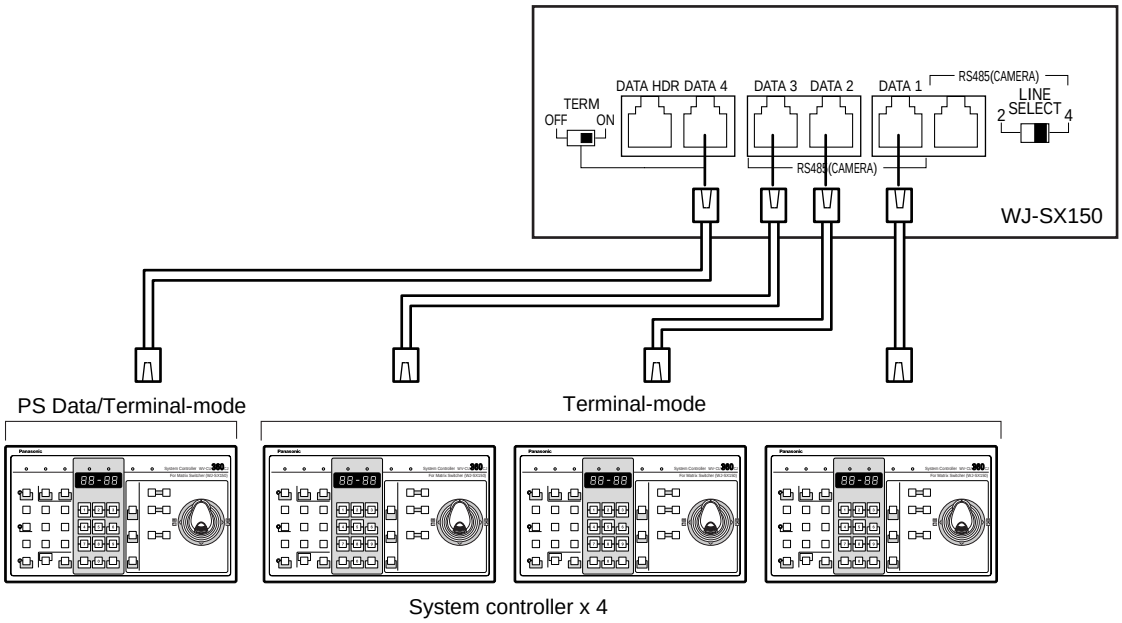


No.	Data Flow	Name	No.
1	–	GND	1
2	WJ-SX150 ← WV-CU360CJ	TX(B)	2
3	WJ-SX150 ← WV-CU360CJ	TX(A)	3
4	WJ-SX150← WV-CU360CJ	RX(B)	4
5	WJ-SX150 ← WV-CU360CJ	RX(A)	5
6	–	GND	6





● Basic Connection

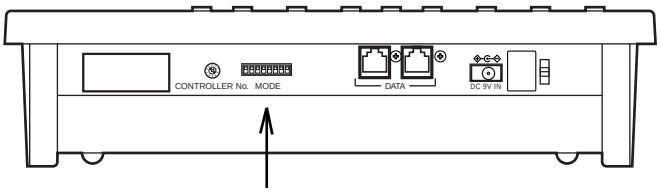


Note: The DATA 4 port is compatible with PS Data (default) or Terminal-mode protocol by setting. For setting, refer to the Operating Instructions included with the WJ-SX150.

■ DIP Switch Setting (Terminal-mode)

An 8-bit DIP switch mounted on the rear panel specifies communication mode, etc. The default position is marked with an asterisk *.

When you use PS Data, refer to page 15, DIP switch setting (PS Data).



	Function	SW position	
		OFF	ON
Bit 1	Operation mode	*	See below
Bit 2	Operation mode	*	See below
Bit 3	Operation mode	*	See below
Bit 4	Reserved	*Fixed to OFF	Not used
Bit 5	Line termination	Off	On*
Bit 6	Administrator mode	Off*	On
Bit 7	Baud Rate Selection	Not used	Fixed to ON
Bit 8	Repeat Transmissions	1 time*	3 times

■ Controller Number Setting

Set this switch always to 1 when using the System Controller with a WJ-SX150.

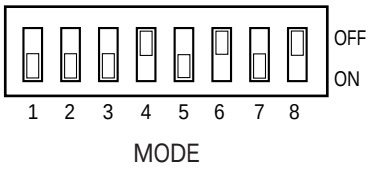
CONTROLLER No.

● Switch Setting Procedures

Set the MODE DIP switch and CONTROLLER NO. switch as follows.

1. Remove the DC plug from the rear of the controller.

2. Set the switches as follows.



MODE

- Bit 1 should be set to ON*.
- Bit 2 should be set to ON.
- Bit 3 should be set to ON*.
- Bit 4 should be set to OFF*.
- Bit 5 should be set to ON* when connecting with a WJ-SX150 in a home run (one to one) fashion.
- Bit 6 should be set to OFF* normally, or ON (Administrator mode) when setting up the controller.
- Bit 7 should be set to ON. The baud rate is selected in the controller setup.
- Bit 8 should be set to OFF* normally.

3. Connect the DC plug to the controller.

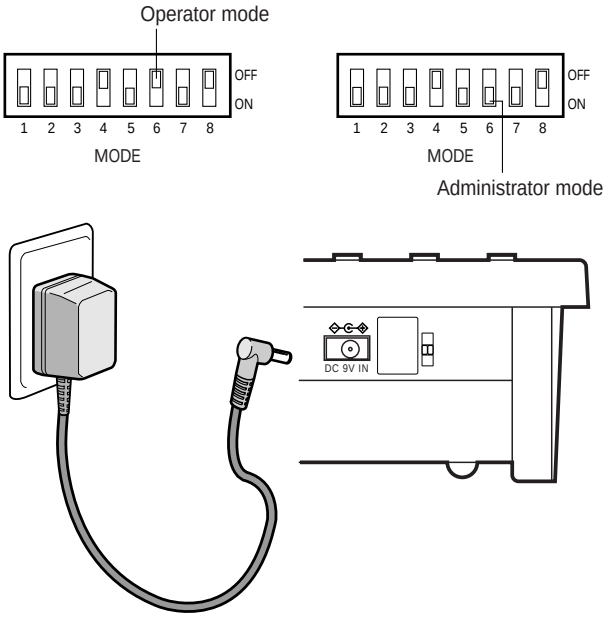
SETUP PROCEDURES (For WJ-SX150)

To display the setup menus for the WV-CU360CJ System Controller on the LED display, set the MODE switch and power up the controller as described below.

■ Prior to Setup

Do the following before entering the setup mode.

1. Confirm that all necessary connections and switch settings are complete.
2. With the power turned off, move bit #6 of the MODE switch on the rear to ON position. (administrator mode)
3. Supply power to the controller.
4. Turn on the power of cameras and other system units.
5. The LCD displays [SEtUP]. The controller is ready to enter the setup mode.



When setup is completed, restore the switch to its original position.

1. With the power turned off, move bit #6 of the MODE switch on the rear to OFF position.
2. Supply the power to the controller.

■ Buttons and Controls Used for Setup

The following buttons and joystick operations are used for setup.

0 — 9 Numeric buttons: To select a parameter

CAM (SET) / WIPER — CAM (SET) button: To execute modes and parameters
To enter a submenu

MON (ESC) / MON LOCK — MON (ESC) button: To return to the previous menu

Up: To select a setup menu

Down: To select a setup menu

Left: To move the cursor to the left

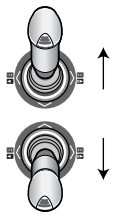
Right: To move the cursor to the right

PREV — To decrease the parameter

NEXT — To increase the parameter

■ Setup Procedures

Set up the baud rate and parity check mode for the controller while observing the LED on the front panel.

Menu Selection	Setup Menus: LED Display	Setup Menus: Reading	Setup Menus: Function		Parameter Selection (default*)
	SEtUP	Setup	Initial Display	**CAM (SET)** →	LED prompts you to enter password
No / OK	blinking	Administrator Password Prompt	Authorization		Enter a 5-digit password, press **CAM (SET)** (12345*)
Move Joystick up and down to select 	SPEEd	Speed	Baud Rate (bps)	Press twice **CAM (SET)** →	(1) 2 400 (2) 4 800 (3) 9 600* (4) 19 200
	PrtY	Parity	Parity Check	**MON (ESC)** ←	(1) None* (2) Even

● Administrator Authorization

1. Press the **CAM (SET)** button while [SEtUP] is displayed. The [- - - - -] prompt appears.
2. Enter a password using the numeric buttons, then press the **CAM (SET)** button.
   The default setting is [12345].
3. If the password entered is valid, [SPEED] appears. If password entry failed, the menu returns to [SEtUP].

● Baud Rate

In this menu, the communication speed (bps: bits per second) is selected. The communication speed should match that of the WJ-SX150.

1. Display [SPEED], and press the **CAM (SET)** button twice.
2. Select a parameter entering a bracket-enclosed number, e.g., (3), moving the joystick.
   The default setting is 9 600 bps.

   (1) 2 400: 2 400 bps
   (2) 4 800: 4 800 bps
   (3) 9 600: 9 600 bps
   (4) 19 200: 19 200 bps

   Note: Selecting a slower rate (e.g., 2 400 bps) will delay the response time (e.g., the time until an activated alarm is reset).
3. Press the **CAM (SET)** button to validate the selection.
4. Press the **MON (ESC)** button to return to the [SPEED] menu.

● Parity

In this menu, the parity check mode is selected.

1. Display [PrtY] and press the **CAM (SET)** button twice.
2. Select a parameter with the joystick.
   The default setting is None.
   n: None
   E: Even parity
3. Press the **CAM (SET)** button to validate the selection.
4. Press the **MON (ESC)** button to return to the [SPEED] menu.

Note: The baud rate and parity check mode of the WJ-SX150 and the controller must be the same, otherwise data communications will not function.

OPERATING PROCEDURES (For WJ-SX150)

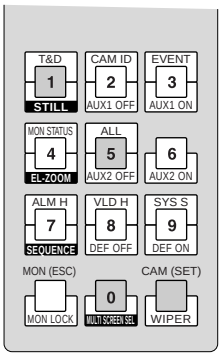
Before starting the following procedures, all system components must be turned on.
The following procedures are applicable when the system controller is connected to the unit.

■ Log-in

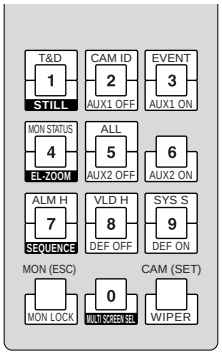
This operation is skipped when the auto log-in is set to ON.

1. Turn on the power switches of all system components.
   The OPERATE indicator will light up.
2. To turn on the power of the system controller, connect the AC adapter to the AC outlet.
   The LINK indicator lights up and "NO USER" appears on the LED display of the system controller.

3. To select your registered operator ID number (1 to 16, up to 2 digits) , press the numeric buttons, then press the CAM (SET) button.
   The underline appears on the LED display of the controller.
   The factory default setting is 150.



4. To select your registered password (up to 5 digits), press the numeric buttons, then press the CAM (SET) button.
   The factory default setting is 150.
   If the operator ID and password are correct, "READY" will appear on the LED display.



Note: If an operator ID and password error occur, the PROHIBITED indicator on the controller will blink and "NO ACCESS" will blink on the LED display for about 3 seconds. Then "NO USER" appears on the LED display. Return to step 3 and select your operator ID.

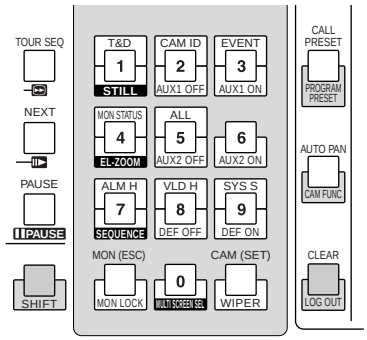
Note: If the auto log-in is set to ON, any operator can login automatically. After the controller is turned on, "AUTO" appears on the LED display for approximately 2 seconds, then "READY" automatically appears.

■ Log-out

This operation is skipped when the auto log-out is set to ON.

This function is used when an operator leaves the controller or no longer requires access to the system.

1. To log out from the system press the CLEAR button while holding down the SHIFT button.
   "NO USER" appears on the LED display of the controller.



Notes:

- If you want to save the power consumption, disconnect the PC plug from the controller, and remove the AC adapter from the AC outlet.
- If the auto log-out is set to ON, any operator can logout automatically if no operation takes place for a specific time. "NO USER" automatically appears on the LED display.
- The time to logout is configurable through SX150 Admin Console.

■ Auto Log-in

If the auto log-in is set to ON, any operator can login automatically. After the controller is turned on, "AUTO" appears on the LED display for approximately 2 seconds, then "READY" automatically appears.
Auto log-in is configurable through SX150 Admin Console.

■ Auto Log-out

If the auto log-out is set to ON and no operation takes place for a specific time, any operator can logout automatically. "NO USER" automatically appears on the LED display.

Auto log-out and the time to logout are configurable through SX150 Admin Console.

Appendix

SPECIFICATIONS

<Controller>

Power Source:	9 V DC, 400 mA (Use the supplied AC Adapter only)
Data Output/Input Port:	6-conductor modular jack (RS-485, Full Duplex) x2
Switching Functions :	Camera selection, Monitor Selection/Sequence Switching of Live and Playback/Changing the Multiscreen Picture Layout/ Still/Electronic Zoom/Sequence
Controller Number	1 to 8 (Rotary Switch)
Unit Address Selection:	1 to 99 (for PS•Data), 1-16 (WJ-FS616/616C)
Monitor Number Selection:	1 to 99 (for PS•Data)
Camera Number Selection:	1 to 199 (for PS•Data)
Lens Functions:	Iris: Open/Close/Preset (only with DC control lens) Focus: Near/Far/Auto Focus Zoom: Wide/Tele
Housing:	Defroster: On/Off Wiper: On/Off Auxiliary 1: On/Off Auxiliary 2: On/Off
Pan/Tilt:	Manual Pan: Right/Left Manual Tilt: Up/Down Auto Pan, Auto Sort, Auto Sequence, Random Pan, Preset Position, Home Position, Camera Patrol
Other Camera Controls:	Camera Setup Camera Function
System Operation:	Alarm (Display/Suspend/Recall/Reset) Setup
Ambient Operating Temperature:	–10˚C to +50˚C (14˚F - 122˚F)
Ambient Operating Humidity:	Less than 90 %
Dimensions:	300 (W) mm x 74 (H) mm x 177 (D) mm [11-13/16” (W) x 2-15/16” (H) x 6-15/16” (D)]
Weight:	1.3 kg (2.9 lbs.)

<AC Adapter>

Input	
Power Source:	220 V to 240 V AC, 50 Hz
Power Consumption:	10 W
Output	
Power Source:	9 V DC
Power Consumption:	400 mA

Dimensions and weight are approximate.
Specifications are subject to change without notice.

STANDARD ACCESSORIES

AC Adapter ..... 1 pc
6-conductor Modular Cable Assembly ..... 1 pc
Palm rest ..... 1 pc
Panel Template for WJ-FS616/616C.....1 pc
Panel Template for System 850.....1 pc
Panel Template for WJ-SX150 .....1 pc

ALL RESET

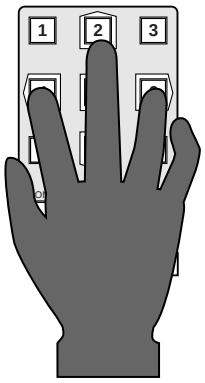
The System Controller WV-CU360CJ can be reset to the default settings.

1. Remove the DC plug of the AC adapter from the controller.

2. While pressing numeric buttons **2**, **4** and **6** simultaneously, plug in the DC plug.

3. When all indicators light up, resetting is completed.

   Note: Keep the DC plug connected to the controller until the reset procedure is completed.



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